DOMESTIC DEBT AND PRIMARY SCHOOL ENROLMENT IN NIGERIA

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Abstract

The study empirically analysed Domestic Debt and Primary School Enrolment in Nigeria. The study obtained secondary data from the World Bank, Debt Management Office of Nigeria (DMO) and Central Bank of Nigeria (CBN) for a period covering 1970-2019 using Unit Root Test (URT), Johansen Co-integration Test (JCT), Vector Error Correction Model (VECM) and Granger Causality Test (GCT) for the data analysis. The major theory that supports the study is Keynesian Theory on Public Debt. The VECM result found that domestic debt showed a positive coefficient of 0.10495 alongside a significant P-value of 0.0076, hence, revealing that domestic debt has a positive and significant effect on primary school enrolment (PSE) in Nigeria. It concludes that borrowing internally has greatly improved primary school enrollment in Nigeria over this 50-year period. Therefore, recommends that judicious utilization of domestic debt should be continued in Nigeria by all the domestic debt managers especially in the area of education as it affirms to have boosted basic education within the period under study. More so, diversification of the economy to boom in order to have alternative revenue-generating capabilities in the economy other than domestic borrowings and a private sector-driven economy should also be encouraged.

Keywords: Domestic debt, Primary School Enrollment, Keynesian Theory on Public Debt and Nigeria.

Introduction

Globally, Domestic Debt and its usage have been of great concern to numerous policymakers, governments, scholars and citizens. Some have argued in favour of it while some have argued against it. The crux of most discussions had been on whether these domestic debts over the years have impacted the citizens positively or negatively.

This study is an empirical analysis of Domestic Debt (DD) and Primary School Enrolment (PSE) in Nigeria. PSE is the number of pupils of the school-age group for primary education expressed as a percentage of the total population in that age group.

According to United Nations Children's Fund (UNICEF) (2013), of every five kids that are out-of-school globally, one is in Nigeria. Although officially public primary education is financially free and made compulsory in the government policy papers, many children are still not in school. This calls for serious concern.

Statement of the Problem

The problem with the educational system in Nigeria is enormous. According to Kazeem (2018) new reports by global development institutions says that Nigeria's spending on education, social protection and health, is "shamefully" low and reflected in reality as Nigeria is regarded as home to the highest children not in school. The first-ever World Bank's Human Capital Index (HCI) ranks Nigeria as 152nd among 157 countries.

The shortage of finance by governments necessitates borrowing. Domestic borrowing/debt arises when the government borrow internally, within the country. Nigeria has borrowed several billions of Naira domestically over these 50 years with the intent to rejig the education sector generally and primary education particularly.

Hence, the study objective is to determine the impact of domestic debt on primary school enrolment in Nigeria from 1970 till 2019 using econometric tests such as Unit root test, Johansen Co-integration, Vector Error Correction Model

(VECM) and Granger Causality test for data analysis.

The study hypothesis is:

H_o1:   Domestic Debt Stock (DDS) does not have any significant effect on Primary School Enrollment (PSE) in Nigeria.

Literature Review
Theoretical Framework
Keynesian Theory of Public Debt

This theory opines that when the private economy faces serious contraction, the sovereign state can venture into borrowing for an upswing in spending to augment the descent in consumption. Whenever government borrows internally for its expenses, idle finances are pulled out from private pockets which consequently reduce the consumption level of private persons. These monies when deployed, will lead to multiple rise in total demand causing a swell in output and employment. Therefore, public debt can be an influencer of macroeconomic performance in a nation Onogbosele and Ben, (2016).

Lerner's View

According to Nwinee and Torbira (2012) this theory posits that when the government borrows internally and uses the fund for government activities, no burden is created for future generation rather the future generations owe it to each other. When the debts are repaid, it is a transfer of wealth from one group of citizens to the other.

Conceptual Review
Primary School Enrolment

Primary School Enrollment (PSE) is the number of pupils of school-age group for primary education expressed as a percentage of the total population in that age group (Knoema, 2019; Federal Ministry of Education, 2017; United Nations Educational, Scientific and Cultural Organization (UNESCO), 2019 and World Bank, 2020). It is one of the measures of basic education in a country. A high ratio reflects a substantial number of enrollments.

Table 2.1 Primary School Enrollment of Nigeria (% gross) 1999-2019

NIGERIA	
YEAR	% GROSS
1999	94.113
2000	98.690
2001	96.376
2002	98.005
2003	99.467
2004	100.667
2005	101.365
2006	102.108
2007	93.310
2008	84.139
2009	85.388
2010	85.118
2011	90.671
2012	92.091
2013	94.119
2014	90.104
2015	87.381
2016	84.726

2017	76.513
2018	68.300
2019	68.300

Source: World Bank Indicators (2020) Data from 1999-2016 Varrella (2020) Data from 2017-2019

Domestic Debt

Debt is an obligation one entity owes another party that is binding (Adofu and Abula, 2010). Domestic debts are borrowings from lenders in the country. The domestic debt of interest in this study is that of the Federal Government of Nigeria (FGN), 36 States and the Federal Capital Territory (FCT). They come in form of treasury bills, treasury certificates, development stocks, etc.

The aggregate Nigeria's domestic debt stock (DDS) in Nigeria as at 31st Dec. 2019 was Fourteen Trillion, Two Hundred and Seventy Two Billion, Six Hundred and Forty Four Million, Seven Hundred and Ninety Three Thousand, One Hundred Naira (N14,272,644,793,100.00).

Comparatively, as at 31st Dec. 2018, the total DDS stood at Twelve Trillion, Seven Hundred and Seventy Four Billion, Four Hundred and Five Million, Seven Hundred and One Thousand, Nine Hundred and Ninety Seven Naira (N12,774,405,701,997.00).

Below is the Total DDS as at 31st Dec. 2019 vis a vis that of 2018.

Table 2.2   DDS of Nigeria by Instrument as at 31st Dec. 2019

Instruments	2019		2018	
	Amount in Naira	% of Total	Amount in Naira	% of Total
FGN Bonds	10,524,157,315,592.00	73.74%	9,334,737,982,592.00	73.07%
Nigerian Treasury Bills	2,651,514,042,000.00	18.58%	2,735,967,538,000.00	21.42%
Nigerian Treasury Bonds	125,988,000,000.00	0.88%	150,988,000,000.00	1.18%
FGN Savings Bond	12,672,051,000.00	0.09%	10,750,443,000.00	0.08%
FGN Sukuk	200,000,000,000.00	1.40%	200,000,000,000.00	1.57%
Green Bond	25,690,000,000.00	0.18%	10,690,000,000.00	0.08%
Promissory Notes	732,623,384,508.00	5.13%	331,271,738,405.00	2.59%
TOTAL	**14,272,644,793,100.00**	**100%**	**12,774,405,701,997.00**	**100%**

Source: DMO (2020)

Components of DDS in Nigeria

Nigeria's DDS is broken down by instruments comprising of:

FGN Bonds: are fixed interest securities allotted by FGN to interested lenders. As at 31st Dec. 2019, the FGN Bond loan outstanding stood at N10,524,157,315,592.00 constituting 73.74% of aggregate DD.

Comparatively, as at 31st Dec. 2018, FGN Bond outstanding was N9,334,737,982,592.00) representing 73.07% of the Aggregate DDS (ADDS).

Nigerian Treasury Bills (TBs): is a short-term debt instrument of the FG that bears an interest and is sold at a discount rate (DMO, 2020). It is fixed interest security issued by FG in the domestic market. The liability as at Dec. 31st 2019 is N2,651,514,042,000.00) being 18.58% of ADDS. As at Dec. 31st 2018, it was N2,735,967,538,000.00.

Nigerian Treasury Bond: is a debt instrument of medium term nature issued by Federal Government with its maturity being between 1-2 years. It is usually vended at a discount due to its longer maturity period, the discounts are higher (DMO, 2020). As at 31st Dec. 2019, the debt stood at N125,988,000,000.00 being 0.88% of the aggregate DD. Whereas, as at 31st Dec. 2018 it was N150,988,000,000.00) which represents 1.18% of ADDS in Nigeria.

FGN Sukuk: Securities and Exchange Commission (SEC) (2020) asserted that Sukuk otherwise known as Islamic or Shariah-compliant "Bond" is an Arabic word which refers to investment certificates or notes. The investments where these monies are invested has to obey Shariah principles. It gives the holder undivided ownership right in the asset and the person is hence entitled to the return generated by that asset.

The first N100 Billion Sovereign Sukuk is an Ijarah (Lease) Sukuk with a tenor of seven (7) years and the investors will earn a Rental Income payable every six months at a rate of 16.47% per annum. The Sukuk was also listed in Nigeria Stock Exchange (NSE) to create an avenue for investors that would wish to sell part or all of their holdings before maturity.

A FGN Sukuk was issued first in 2017 valued at N100 Billion Naira as a public offer with a unit issued at N1,000, a minimum of N10,000 (DMO, 2020). Another N100 Billion Sovereign Sukuk was issued in 2018 with a 7-year maturity ending 2025 (SEC, 2020). Sukuk is among the debt mechanisms introduced in Nigeria's DMS 2016-2019 that were issued in the national market to moderate risk in foreign exchange in the short to medium term (DMO, 2020).

Nigeria's exposure as at end of 2019 is N200,000,000,000.00 being 1.40% of ADDS. By year end 2018, the amount was also the same but was 1.57% of ADDS.

FGN Savings Bond: It is another debt instrument in the home market to lenders. As at end of Dec. 2019 the debt totaled N12,672,051,000.00 representing 0.09% of ADDS while as at 31st Dec. 2018, it was N10,750,443,000.00 being 0.08% of ADDS.

Green Bond (GB): is a debt instrument that is used mainly to finance or refinance green projects, to fund climate and environmental projects. It has the same benefits as regular bond like low risk, fixed regular income, tradability, tax savings and capital appreciation(NSE, 2020).

According to Oyerinde (2020), the GB concept started when a few development banks like the WB and European Investment Bank launched it in 2007. The first country to issue it in Dec. 2016 was Poland followed by France and Fiji. Oyerinde further asserted that Nigeria issued firstly a N10.69 Billion(US$30M) GB in the local Market on 18th Dec. 2017 being the first in Africa to issue a debt that raises fund for environmental projects.

The FGN GB had a tenor of 5 years with its interest repayable bi-annually to finance some projects in the Appropriation Act of 2017. The second series of issuing of another N15,000,000 Green Bond in Nigeria was in 2019 with a 7-year tenor maturing in 2026 and a Coupon Bond of 14.40%-14.50% per annum with the interest payable half-yearly (DMO, 2019).

Year-end December 2019, FGN Green Bond stood at N25,690,000,000.00 representing 0.18% of the aggregate DD while in 2018 it was N10,690,000,000.00 being 0.08% of the aggregate DD.

Promissory Notes: is a short term debt instrument of government where the holder of the bill will be paid at a future date (DMO, 2020). Promissory Notes outstanding in Nigeria as at 31st Dec. 2019 was N732,623,384,508.00 being 5.13% of ADDS. Whereas, as at Dec.

Empirical Review
Below is some related empirical literature of this study:

Nnamdi and Saborogha (2016) investigated domestic debt and Public Capital Expenditures in Nigeria using data from 1980-2014. Augmented Dickey-Fuller (ADF) test, Johansen Cointegration Test (JCT), Error Correction Estimates and Pairs Wise Granger Causality Test (GCT) were utilized for analysis and it revealed that a remarkable long-term relationship subsists amid Nigeria's domestic debt

and classified capital expenditures, while public capital expenditure has an outstanding long-run influence on Nigeria's domestic debt.   It concluded that government depends excessively on domestic debt to finance classified capital domestic operations and recommended a reversal of that trend by matching revenues and outlays to lessen the excessive up-shoot in the domestic debt profile.

Ngerebo-a (2014) who studied domestic debt and Poverty in Nigeria from 1986-2012 using Ordinary Least Square (OLS), Vector Auto Regression Analysis (VAR), Johansen Co-integration and Granger Causality Approaches discovered that a long-run relationship exists amid poverty and domestic debt. Therefore, government should settle the outstanding domestic debt because excessive domestic debt sometimes negates economic growth.

Ude and Ekesiobi (2014) studied domestic debt and Private Investment in Nigeria from 1970-2012 using OLS. It was discovered that domestic debt significantly and negatively impact on foreign and domestic investment. Further, exchange rates and debt servicing have positively affects foreign private investment in Nigeria. They opined that if the domestic debt is unchecked it crowds-out private investment and hence recommends that Governments should ensure that appropriate policies that strengthen foreign private investments are designed and implemented.

Onyeiwu (2012) in domestic debt and economic growth in Nigeria from 1994-2008 using OLS, Error Correlation Mechanism (ECM) and Parsimonious models revealed that debts got internally are very much above 35% that is the healthy limit for bank deposits, this portends to crowd-out private investments. The study advises that Nigeria needs to improve on foreign accessibility of domestic debts to reduce financial costs and to strengthen competition resulting in higher market efficiency.

Adofu and Abula (2010) examined domestic debt and the Nigeria Economy from 1986-2005 using OLS. They discovered that the country's economic growth was affected negatively by domestic debt and recommended that government should be discouraged from domestic debt

accumulation and rather intensification in revenue base through tax restructurings.

Using data from 20 African countries, Carsemer and Ekyem (2015) studied Government Educational Expenditure and Enrollments at Primary and Secondary School Level from 1998-2012. Employing Time Effect Model and Panel Data Analysis, they found that Educational expenditure positively impacts on primary and secondary school enrollment with a stronger impact on secondary school enrollment. Political instability decreases school enrollment while educational reforms affect it positively. Hence, African Governments should enhance to education budget in addition increase infrastructural facilities to promote school enrollment.

Further, Okuneye, Babatunde and Olukayode (2016) studied Primary Enrollment and economic growth in Nigeria using data from 1980-2010. Employing OLS they revealed that Primary Enrollment display a massive predictive influence in elucidating variation in Nigeria's economic growth. They further asserted the need for government to adequately and conscientiously fund the education sector following weak and sluggish trend of primary enrolment in Nigeria.

Gaps in Literature
Many of the studies failed to link the dependent variable primary school enrollment with the independent variable domestic debt. That is the point of departure. This study also used data as far back as 1970 up to recent data of 2019 thereby using very recent data for analysis and the long period also helped in the robustness of the analysis for quality findings.

Methodology
The research design used for empirical study is Ex-post facto research design as the data used are from secondary sources that already exist and the researchers had no influence on. Nigeria is the study area as well as the population of the study and a census sampling approach was adopted where the macro-economic view of the study variables selected constituted the sample size.

The secondary data on DDS and PSE for the period 1970 to 2019 were extracted from

publications of Central Bank of Nigeria (CBN) Statistical Bulletins, World Bank and Debt Management Office (DMO) of Nigeria.

Data Analysis

Unit root test, Johansen Co-integration, Vector Error Correction Model (VECM) and Granger Causality test were used for data analysis to determine the effect of domestic debt and primary school enrollment between 1970-2019 which is a 50-year analysis with the aid of econometric software E-views 10.0 at 5% degree of freedom (df).

Model Specification

To achieve the study objective which is to determine the effect of Domestic Debt (DD) on Primary School Enrolment (PSE), a model was formulated based on the conceptual framework and stated below:

Model One:

Thus, the functional effect of Aggregate Domestic Debt (ADD) on PSE can be expressed as below:

PSE = f(ADD)----------------------------(1)

Where:

PSE = Primary School Enrollment
ADD = Aggregate Domestic Debt

Results and Discussions
Data Presentation
Table 4.1 - 1970-2019 Data of all the Variables of Study

Where:

ADDS = Aggregate Domestic Debt
PSE = Primary School Enrolment

YEARS	ADDS (#'Billion)	PSE %
1970	1.09	40.94
1971	1.23	44.416
1972	1.31	48.731
1973	1.42	50.351
1974	1.48	50.351
1975	1.87	50.351
1976	2.69	49.092
1977	3.40	60.102
1978	4.81	76.343

The above model is converted into a Mathematical model by introducing a constant term (δ_0) and slope.

$$PSE_t = \delta_0 + \delta_1 ADD_t \text{..(2)}$$

Equation (2) above is insufficient, as such error term, constant and slope is introduced to realize the Econometrics model:

$$PSE_t = \delta_0 + \delta_1 ADD_t + \pi_{it} \text{..(3)}$$

Where:

δ_0 is the constant term; π_{it} is the error term while δ_1 is the coefficient.

Theoretical (Apriori) Expectations

The expected signs for the coefficients are: $\delta_1,$ > 0 on *a priori* expectation, this pre-supposes that increase in DDS has a positive effect on PSE.

Uniformity of Measurement Values of the Operational Variables

To assess the effects of the study variables without the complexity of various values of measurement, the absolute figures of Aggregate Domestic Debt Stock (ADDS) and ratio values given in PSE were logged to ascertain uniformity of measurement in order to avoid analytical paralysis.

1979	7.21	89.749
1980	7.92	94.839
1981	11.20	103.069
1982	15.00	112.761
1983	22.20	113.079
1984	25.70	111.836
1985	27.90	106.283
1986	28.40	93.491
1987	36.80	89.737
1988	47.00	85.389
1989	47.00	83.045
1990	84.10	86.492
1991	116.20	85.646
1992	178.00	89.704
1993	273.80	93.818
1994	407.60	93.607
1995	477.70	89.301
1996	420.00	78.663
1997	501.80	78.663
1998	560.80	78.663
1999	794.80	94.113
2000	898.30	98.69
2001	1,017.00	96.376
2002	1,166.00	98.005
2003	1,329.70	99.467
2004	1,370.30	100.667
2005	1,525.90	101.365
2006	1,753.30	102.108
2007	2,169.60	93.31
2008	2,320.30	84.139
2009	3,228.00	85.388
2010	4,551.80	85.118
2011	5,622.80	90.671
2012	6,537.50	92.091
2013	8,670.63	94.119
2014	9,611.60	90.104
2015	10,492.17	87.381
2016	13,881.09	84.726
2017	15,938.26	76.513

| 2018 | 16,627.84 | 68.300 |
| 2019 | 18,378.96 | 68.300 |

Sources: DMO 2020, World Bank 2020 and CBN 2020.

Table 4.2   Logged form of ADD and PSE from 1990-2019

YEARS	ADD	PSE
1970	0.0862	3.7121
1971	0.2070	3.7936
1972	0.2700	3.8863
1973	0.3507	3.9190
1974	0.3920	3.9190
1975	0.6259	3.9190
1976	0.9895	3.8937
1977	1.2238	4.0960
1978	1.5707	4.3352
1979	1.9755	4.4970
1980	2.0694	4.5522
1981	2.4159	4.6354
1982	2.7081	4.7253
1983	3.1001	4.7281
1984	3.2465	4.7170
1985	3.3286	4.6661
1986	3.3464	4.5379
1987	3.6055	4.4969
1988	3.8501	4.4472
1989	3.8501	4.4194
1990	4.4320	4.4601
1991	4.7553	4.4502
1992	5.1818	4.4965
1993	5.6124	4.5414
1994	6.0103	4.5391
1995	6.1690	4.4920
1996	6.0403	4.3652
1997	6.2182	4.3652
1998	6.3294	4.3652
1999	6.6781	4.5445
2000	6.8005	4.5920
2001	6.9246	4.5683
2002	7.0613	4.5850
2003	7.1927	4.5998
2004	7.2228	4.6118
2005	7.3303	4.6187
2006	7.4693	4.6260
2007	7.6823	4.5359
2008	7.7495	4.4325
2009	8.0796	4.4472
2010	8.4233	4.4440
2011	8.6346	4.5072
2012	8.7853	4.5228

| 2013	9.0677	4.5446
2014	9.1707	4.5010
2015	9.2584	4.4703
2016	9.5383	4.4394
2017	9.6765	4.4291
2018	9.7188	4.4137
2019	9.8190	4.4137

Source: Authors Computation aided by E-Views 10.

Graphical Representation

This study showed a graphical representation of the variables in their natural forms.

This will help us ascertain the real visual underlying trend starting with Aggregate Domestic Debt (ADD).

**Figure 4.1 Aggregate Domestic Debt Stock 1970-2019.**

ADDS
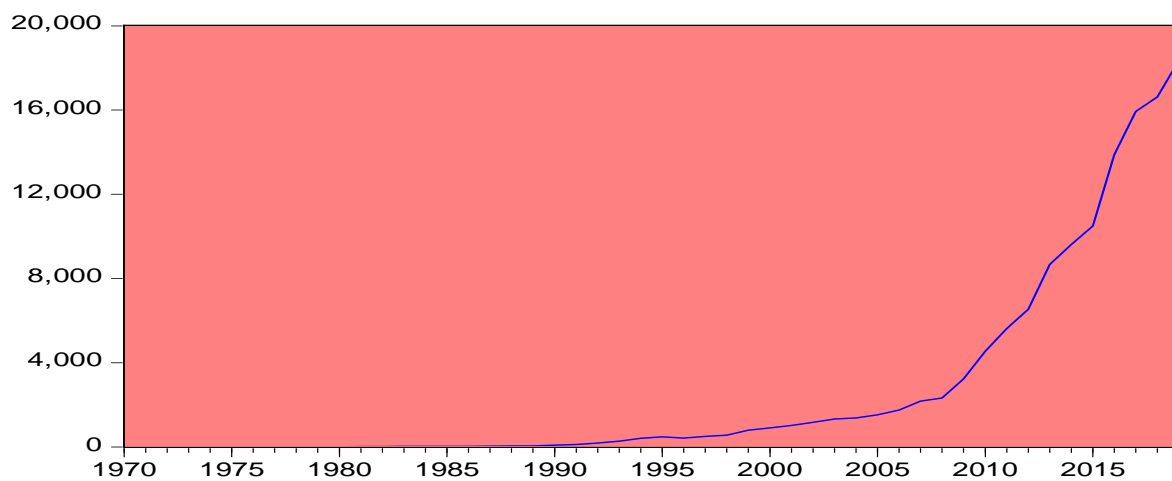
Source: Extraction from E-views 10

The Graphical representation of ADDS shows a very slow and flat condition of ADDS which started from 1970 and lingered till 1991 after which a slight increase led to further slight upward sprout of the phenomenon in Nigeria but later increased magnanimously around 2009 till date.

Figure 4.2 Primary School Enrolments 1970-2019

PSE
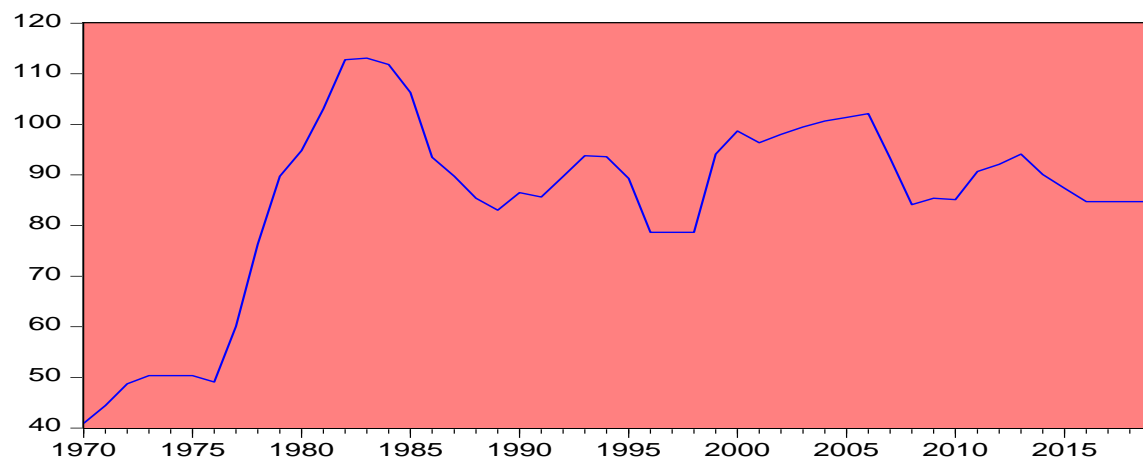
Source: Extraction from E-views 10

From Figure 4.2 presented above shows that PSE in Nigeria from 1970 to 2019 is not stable. For instance, PSE witnessed a sharp upward movement from 1970 to 1976 and from 1977 to 1983, the percentage of PSE was impressive as there was a large turnout in PSE. From 1984 to 1989, PSE

turnout fell and since then, the percentage of PSE was unstable till date.

Descriptive Statistics

To access underlying trend amongst employed variables, descriptive statistics was employed:

Table 4.3: Presentation of Descriptive Statistics output

	PSE	ADDS
Mean	95.21056	2624.030
Median	89.50250	413.8000
Maximum	113.0790	18378.96
Minimum	40.94000	1.090000
Std. Dev.	18.03142	4789.645
Skewness	-1.023757	2.082133
Kurtosis	3.402657	6.198845
Jarque-Bera	9.071757	57.44524
Probability	0.010717	0.000000
Sum	4260.528	131201.5
Sum Sq. Dev.	15931.48	1.12E+09
Observations	50	50

Source: Extraction from E-views

Table 4.3 results above, it shows that the mean values of all the series under investigation are greater than their median values which show the fitness of all variables employed. The mean value of ADD exhibited the higher average value of 2624.03 while PSE rate has a mean coefficient of 95.21056. Standard deviation helped in capturing the volatility of the model and the outcome shows that ADDS exhibited the higher volatility coefficient of 4789.645 while PSE exhibited a volatility coefficient of 18.0314. The descriptive statistics coefficients thus suggest that ADDS is more volatile in Nigeria. By implication, its increased volatility without a corresponding increase in other development indices could create an adverse effect on Nigerian economy.

Further, the skewness explains and shows the movement of variables if they are higher or lower than the mean (As the mean is considered as a state of normalcy), it could either be positive or negative. ADD exhibited a positive skewness coefficient of 2.082133 which is positively skewed to the right towards normality while PSE is negatively skewed.

However, the kurtosis value help in ascertaining the peakness of the variables employed. From the report presented in table 4.3 above, PSE and ADDS exhibited coefficients of 3.40265 and 6.19884 which are greater than 3 thus suggesting that PSE and ADDS are leptokurtic in nature, that is having their kurtosis greater than the normal distribution.

Further, the jarque-bera statistics set out to test for normality distribution of the residual shows that PSE and ADD exhibited probability coefficients of 0.010717 and 0.00000 which are not normally distributed due to their significant coefficient.

Econometrics Analysis

E-view 10 computer software was employed for data analysis. To ascertain the reliability strength of the data set, we began the estimation with a URT.

Data Analysis

The data are firstly tested for Stationarity to avoid spurious results which could have risen if non-stationary data are used for regression. The reveals that the entire variables are stationary at first difference. In other words, all the variables are integrated of order one, I(1) summarized in Table 4.4   as   follows:

Table 4.4 Augmented Dickey-Fuller Unit Root Test

	P-Val	ADF Test Statistic	Critical Values			
Variables		1st difference	1%	5%	10%	Remarks
PSE	0.0071	-3.698892	-3.574446	-2.923780	-2.599925	Stationary
ADDS	0.0001	-5.322324	-3.574446	-2.923780	-2.599925	Stationary

Source: Extraction from E-view

From Table 4.4 presented above, the ADF statistics of all the series are more negative than their critical values at all levels (1, 5 and 10%) implying that the series are differenced once for them to be stationary and are therefore said to be integrated of order one. The researcher thus resorted to testing for co-integration between the variables since the study is a long run study and further proceeded to test for long-run relationship that might have existed among the series using JCT.

Model One

$$PSE_t = \delta_0 + \delta_1 ADDS_t + \pi_{it} \quad \text{..(6)}$$

Table 4.5: Presentation of Johansen Co-integration Test Result

Date: 07/30/20   Time: 12:29
Sample (adjusted): 1972 2019
Included observations: 44 after adjustments
Trend assumption: Linear deterministic trend
Series: PSE ADDS
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.386377	37.20051	29.79707	0.0058
At most 1 *	0.274543	15.71203	15.49471	0.0464
At most 2	0.035493	1.590084	3.841466	0.2073

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Extraction from E-views

The results of JCT shown in Table 4.5 above affirms the prevalence of two (2 no.) Co-integrating equations. Thus, implying that a significant long-run relationship prevails among this study's set of variables. Therefore, we proceeded to VECM having established the existence of a long-run relationship among the series.

Table 4.6: Presentation of Parsimonious Results of ECM

Dependent Variable: D(PSE)
Method: Least Squares (Gauss-Newton / Marquardt steps)
Date: 07/30/20   Time: 12:32
Sample (adjusted): 1972 2019
Included observations: 45 after adjustments
D(PSE) = C(1)*(PSE(-1) - 1.93008537*ADDS(-1) + 2.5048377245
    *D(PSE(-1)) + C(2)*D(ADDS(-1)) + C(3)

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.011748	0.011462	-1.024869	0.0116
C(2)	0.104955	0.037358	2.809424	0.0076
C(3)	0.533058	0.713717	0.746876	0.4595
R-squared	0.410940	Mean dependent var		1.232556
Adjusted R-squared	0.352034	S.D. dependent var		5.819874
S.E. of regression	4.684786	Akaike info criterion		6.030957
Sum squared resid	877.8890	Schwarz criterion		6.231697
Log likelihood	-130.6965	Hannan-Quinn criter.		6.105791
F-statistic	6.976193	Durbin-Watson stat		1.934600
Prob(F-statistic)	0.000233			

Source: Extraction from E-views

The VECM results shown in Table 4.6 confirm that in the long-run, variations in DDS account for 1.2% of the changes in PSE. VECM exhibited a coefficient of -0.01174 approximately 1.2% alongside a significant P-value of 0.0116, thus indicating the speed at which PSE adjusts back to equilibrium within the year following short-run distortions in the DDS in Nigeria.

C(2) represent DDS and it seem to display varying relationships with PSE in Nigeria. ADDS exhibited a significant P-value of 0.0076 alongside a positive coefficient of 0.1049 thus signifying that DD has contributed to PSE in Nigeria to the tune of 0.1049 percent overtime. The economic implication of this result is that aggregate DD has impacted on Nigerian PSE in a positive manner.

The adjusted R^2 shows that the exogenous variable (DDS) account for about 41.1% fluctuation in the endogenous variable (PSE). Durbin Watson statistics stood at (1.9346) which reveals the absence of autocorrelation. The F-statistics and corresponding probability show the overall significance of the model with a coefficient of 0.000233.

Table 4.7: Presentation of VEC Granger Causality/Block Exogeneity Wald Tests

VEC Granger Causality/Block Exogeneity Wald Tests
Date: 07/30/20   Time: 12:30
Sample: 1970 2019
Included observations: 44

Dependent variable: D(PSE)

Excluded	Chi-sq	Df	Prob.
D(ADDS)	7.945909	1	0.0048

| All | 7.974221 | 2 | 0.0186 |

Source: Extraction from E-views

The results of VEC Granger Causality/Block Exogeneity Wald Tests shown in table 4.7 above indicate the absence of a bi-directional causal relationship among any of the paired variables. However, a uni-directional relationship prevails between DS and PSE with causality flowing from ADDS to PSE. This indicates that a significant relationship prevails between DDS and SD in Nigeria. The result complements that of the VECM presented in Table 4.6 and shows that the Nigerian economy has benefited from DDS over time.

Test of Hypotheses

Hypothesis testing is another way of finding out whether the estimated results make good theoretical sense and whether the results obtained conform to the underlying theory.

Having performed the analysis, next is to proceed to test the hypotheses formulated in chapter one above to enable discussion of the findings. The result of the VECM presented in Table 4.6 was used in testing the hypothesis respectively.

Hypothesis:
H$_{o1}$:   DDS does not have any significant effect on PSE in Nigeria.

The VECM presented in Table 4.6, DDS exhibited a positive coefficient of 0.10495 alongside a significant P-value of 0.0076 which suggests the existence of a significant and direct relationship among the series. As such, the study rejects the null hypothesis and thus concludes that DDS positively and significantly affects PSE in Nigeria.

Discussion of Findings

DDS exhibited a positive coefficient and significant P-value which implies that a significant relationship exists between DDS and PSE. Result of the causality test presented in Table 4.7 also provided us with an evidence of a significant relationship transpiring between DDS and PSE. The economic implication of the result is that increase in

DD will promote PSE in Nigeria to the tune of 10.5 percent.

Theoretically, the report from this investigation supports the Keynesian postulation on public debt and Lerner's View which are some of the theories used in this study that opined that debt is a key stimulus to development.

The report from this investigation validates empirical findings of Onuorah and Ogbonna (2014) whose studies showed that DD significantly promotes economic development in Nigeria. Their study further explains that DD has contributed to economic development in Nigeria because of its low cost of servicing.

Conclusion and Recommendations

This study aimed at investigating the effect of domestic debt on primary school enrollment in Nigeria. As a restatement of the objectives, this research was undertaken specifically to ascertain the effect of domestic debt on primary school enrollment.

From the data analysis it can be summarized that domestic debt has a positive and significant influence on primary school enrollment in Nigeria. The economic implication of the result is that increase in domestic debt promoted primary school enrollment in Nigeria over this 50-year period.

Having subjected the data collected to various econometric analyses, the study concludes that domestic debt appears to be significant in boosting primary school enrollment in Nigeria.

Hinged on the main theoretical framework Keynesian theory of public debt and Lerner's view theory, the following recommendations are made:
i.   Domestic debt proved to be positive and significant in promoting primary school enrollment in Nigeria in this research, hence, efforts should dwell more on borrowing internally rather than externally, if the country must borrow at all. Also, more

funds should be deployed in education as the advantage of a well-educated populace directly impacts all spheres of the economy hence leading to economic development in Nigeria.

ii.   Diversification of the economy to boom is recommended in order for the government to have alternative revenue-generating capabilities in the economy.

iii.   A private sector-driven economy should also be encouraged so that the economy will be powered by the sector and the government's recurrent expenditures on salaries of several sectors that can be comfortably managed by the private sector will be eliminated and the domestic debt used in paying these salaries halted. Government can also boost revenue from taxes and widen the tax base if the private sector is made very viable through government support and favourable business policies that boost economic activities are put in place.

iv.   Judicious utilization of government internally generated revenue on sustainable projects that target the poor to bridge the gap of inequality and minimize the high poverty level in Nigeria.

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