# DOMESTIC DEBT DETERMINANTS IN NIGERIA

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**ABSTRACT:**

***Our study focuses on 'income flows' from activities in the domestic economy which is employed to servicing government operations. Secondary time series were sourced from the statistical database of the Central Bank of Nigeria for the period 1981-2016; and the eviews8 statistical software was employed to determine the long run equilibrium relationship and error correction among the variables. From the analysis, domestic debt, export earnings, external reserves, foreign direct investment, gross domestic product; total revenue generation and treasury bills are cointegrating and as such have a long run equilibrium relationship.Our result gave a speed of adjustment of 29% with its expected negative sign which shows that the ECM (-1) is statistically significant at the 5% level. Thus, as GDP and Revenue increases domestic debt also increase. This may be as a result of the increasing capacity to service debts utilized in development projects. Based on the findings, the study recommends that the National Population Commission should step up campaign programmes to address population control.***
***Keywords: Domestic Debt, GDP, FDI, External Reserves, Export Earnings, Total Revenue***

## INTRODUCTION

According to Nwinee and Torbira (2012), borrowing domestically or externally is normal and indeed a necessary part of economic activity. To them, the economic rationale for debt creation is that borrowers can earn higher economic return than the cost of invested funds and that these economic returns can then be translated into financial returns. They argued that the level of debt depend on the debt servicing capacity of the economy, that is, export earnings, revenue generations etc. Furthermore, they define debt of a country at any given time as the sum of all past budget deficits.

Domestic debts are debts instruments issued by the federal government and denominated in local currency (Onyeiwu, 2012). The aim of domestic borrowing in Nigeria is to avoid dangers associated with external borrowings occasioned by rising government expenditures vis-â-vis falling government revenues; add to the internal savings for productive activities through infrastructural development as well as management of other macroeconomic conditions of the country (Ajayi, 1989; Gbosi, 1998; Adofu and Abula, 2010).

On the domestic front, one of the major sources of Federal Government revenue has been the oil sector which gives about 95% of foreign earning and 80% of budgetary revenue. Nigeria's inability to diversify the economy has made it impossible to generate adequate

revenue to sustain the entire economy. Actually, the domestic loans represent the gross liability of government, which also includes federal, state and local governments' transfer obligations to the citizens and corporate firms within the country. Domestic debt consists of securitized loans such as Treasury bills, and Certificates, Development Stocks, Treasury Bonds and state government bonds as well as un-securitized loans such as public sector debt to banks and local contractors (Odozi, 1996).

The debt service payments are a charge on domestic income, savings and export income. Since the domestic debt situation worsened, the amount of resources required for debt service payments has gone up. The situation has become an impediment to growth and poverty reduction. The urgent need to restore the creditworthiness of the nation, amidst declining export receipts and foreign capital inflow, forced the Nigerian government to adopt the Structural Adjustment Programme (SAP) in 1986. Measures taken to limit the growth of Nigeria's foreign debt include embargo on new loans, directive to state governments to minimize external borrowings, as well as concessional refinancing, debt restructuring, etc. However, experience has shown that these measures including restructuring are at best stop-gap measures, and do not offer lasting solutions. The problem is that large continuous increases in debt service payments retard investment, economic growth, and lower the standard of living. Moreover, inadequate debt-servicing capacity tends to reduce creditworthiness, hence external credit availability.

Methodologically, most past studies have estimated domesticdebt in relation to economic growth, that is, employ economic growth as their dependent variable against which other macroeconomic variables are regressed; which are not cash related.Our study focus on 'income flows' from activities in the domestic economy which is employed to servicing government operations.

**Nigeria's Public Debt**

Until 2000, the administration of Nigeria's public debt was problematic resulting in a debt crisis. Both the strategies adopted and the institutional arrangements in place were not adequate to achieve a sustainable debt regime for Nigeria. Public debt management responsibilities were diffused across several agencies and operators, leading to ineffective and poor coordination of debt functions. This resulted in rapid growth in the country's debt portfolio from less than US$1 billion in 1970 to about US$28.27 billion in 2000 and to about US$35.94 billion by end 2004.Subsequent to the successful Paris Club debt agreement and the exit from the London Club debts, Nigeria's total external debt stock dropped to US$3,544.49 million in 2006 from US$35.94 billion in 2004 and $3,654.21 as at end of the year, 2007. Also, domestic debt increased from US$10.314 billion as at December 31 2004 to US$18,575.67 billion by end of December 2007 representing 83.56 percent of the total public debt stock. It is necessary to emphasize the motivation for the upward trend in the domestic debt stock over the years. While the US$18.575.67 billion domestic debt stocks may seem a fairly large amount, its size largely reflects the cumulative effects of financing Nigeria's budget deficits in the past, including public sector capital expenditure needs. The increases are accounted for by different sets of factors, reflecting a shift towards market-based funding of government deficits, borrowing for developmental purposes and on-lending to institutions such as Nigerian Agricultural and Rural Development Bank, Bank of Industry and the Federal Mortgage Bank. The

increase in the domestic debt stock was also as a result of the issuing of Special Bonds by the Federal Government to resolve the lingering crises of pension arrears and local contractors' debt (Nwankwo, 2011).

**The Keynesian Debt Theory**

The Keynesian School of economic thought justifies government debt as an outcome of government's spending that is required to boost the economy and propel it out of recession. The size of government's final consumption has a bearing on government's borrowings. Accordingly, government consumption expenditure significantly influences the borrowing decisions of the government, which in turn affects the government debt level. Governments raise debt to support public and profitable investment (in both physical infrastructures and human resources) by public spending. As the government seeks to boost the economy by undertaking fixed capital formation activity for enabling speedier growth of economy, the extent of growth of gross fixed capital formation affects the level of government debt. For the Keynesians,there is no cost of debt for the present or future generations,given the investment made. To them,loans promote recovery of aggregate demand and leads to higher level of investment and therefore production.

The Keynesian School of economic thought justifies government debt, as a repercussion of government's spending that is required to boost up the economy. Lerner (1943) and Sardoni (2013) view of public debt contend that government can borrow from the private sector whenever the need arises. This signifies that public debt cannot be extinguished permanently. The study further emphasizes that borrowing earns the private sector some income in the form of interest.Furthermore, Lerner (1943) considers public debt and consequent interest payment as a reallocation of earnings whenever government issues debt instruments to the public. The study argues that borrowing should be undertaken by government only when it wants to reduce the amount of money in circulation and thus, increase the number of government bonds held by the public. Therefore, a consistent increase in government debt is not sufficient to breakdown the economy.This is because as public debt increases, interest to be paid also increases. To pay interest, the study asserts, the government might have to borrow more.

Domar (1944) assessment of public debt contends that deficit spending does not lead to increased government borrowing, as well as the debt and interest repayments. The study claims that previous studies tend to neglect the positive effects of deficit spending on disposable income. As per Wagner law, once the society has evolved considerably, the government simply cannot ignore their increased demands regarding various public services, which calls for increased level of deficits and debts that might undermine financial stability at any time. For this reason a lot of studies have conducted series of analyses to identify the factors that affect public debt size in the economy.

**Debt Over-Hang Theory**

This theory is built on the foundation that whenever the level of debt will surpass a country's ability to repay with some probability in the future, estimated debt service is likely to be a growing function of the country's output level. Consequently, some of the earnings obtained by investing in the domestic economy are efficiently taxed away by current foreign creditors. This does not encourageinvestment by domestic and new foreign investors. Debt

servicing, which includes interest payments and repayments, takes large benefit from the domestic economy to be able to allocate to the foreign economy. Therefore, the country declines some outstanding multiplier-accelerator effects. This will minimize the ability of the domestic country to grow her economy and increases her dependency on foreign debt (Yucel, 2009).

**Crowding Out Effect**

Under thecrowding out effect, a reduction in the debt service would lead to growth in investment for every given level of future indebtedness, on the other hand when a larger portion of foreign resources are utilized to service external debt, very little portion is available for investment and growth. In summary, debts overhang hypothesis emphasize that external debt leads to a negative effect on investment. The debtor country cannot profit fully from an upsurge in production (economic growth). A part of the production would go to creditor countries in order to pay the debt service and this fact is a concern for investment and production decisions.

**EMPIRICAL REVIEW**

Atique and Malik (2012) evaluate the effects of domestic and external debts on the economic growth of Pakistan over the period 1980-2010 using Ordinary Least Square technique. The results show significant inverse relationship for both domestic and external debts with respect to Pakistanian Gross domestic product.

Ogege and Ekpudu (2010) examine the effect of debt burden on the Nigerian economy using time series data from 1970-2007. Ordinary least square (OLS) was employed to test the relationship between debt burden and growth of the Nigeria economy. The result shows a negative relationship between debt stock and Nigeria's gross domestic product. In the same vein, Momodu (2012) examines the effect of debt servicing on economic growth in Nigeria. The study reveals that debt payment to Nigerian creditors has significantly affected Nigeria's GDP and GFCF.

Uma, Eboh andObidike (2013) empirically investigates the influence of total domestic debt, total external debt cum servicing of external debt from 1970-2010 on the economic development of Nigeria. The study employs test of stationary, (Augmented Dickey-Fuller test) and Johansen test for co-integration to ascertain the long-run relationship of the variables. Ordinary least square was used to analyze the data. The results show that total domestic and external debts are inversely related to real gross domestic product,(a proxy for economic development), but at an insignificant level.

To Muhtar (2004), the service of debts has direct negative impact on economic development. To him, debt services encroach on resources needed for socio-economic development and poverty reduction. It also contributes to negative net resources flow.

Egbetunde (2012) examines the nexus between public debt and economic growth in Nigeria between 1970 and 2010 using a Vector Autoregressive technique (VAR). The variables used in the study were tested for stationarity using the Augmented Dickey Fuller and Philip Perron tests. The result showed that the variables are stationary at first differencing. Co-integration test was also performed and the result revealed the presence of co-integration between public debt and economic growth. The co-integration results show that public debt and economic

growth have long run relationship. The findings of the VAR model reveal that there is a bi-directional causality between public debt and economic growth in Nigeria.

Adenike, Adekunle and Abiodun (2007) examine the role of debt management practices on sustainable economic growth and development with particular emphasis on Nigeria. Analysis of the data collected that, availability of access to external finance strongly influences the economic development process of any nation. Debt is an important resource needed to support sustainable economic growth. But a huge external debt without servicing as it is in the case of Nigeria before year 2000, constituted a major impediment to the revitalization of her deteriorating economy as well as poverty alleviation.

Abbas and Christensen (2007) examine the role of domestic debt markets in economic growth, they undertook an empirical investigation for low-income countries and emerging markets using panel econometric techniques to examine the endogeneity of domestic debt and its impact on growth with a view to obtaining a sense of the optimal size and quality of domestic debt. They found the following, among others: higher private savings increase the scope for domestic debt issuance while a larger supply of domestic debt instruments provides incentives to increase private savings. But, financial depth had a surprisingly weak causal relationship with income and the growth contribution of domestic debt is higher if it is marketable, bears positive real interest rates and is held outside the banking system.

Anyanwu and Erhijakpor (2004) examine the growth effects of current domestic debts as a ratio of GDP as well as the growth effects of the past domestic debt using Nigeria's time series data. OLS method was employed. The results indicate that current domestic debt as a ratio of GDP has a significant negative effect on economic growth, probably due to high implicit domestic interest rates. On the other hand, past domestic debt significantly relates to economic growth. Christensen (2004) looks at the role of domestic debt in 27 Sub-Saharan African countries including Nigeria between the periods, 1980 and 2000. The results reveal that domestic debts were relatively small compared to their external debts and that in spite of the low domestic to external debt ratios, interest payment still posed a great burden on their budgets.

Abbas and Christensen (2007) analyze the optimal domestic debt range in countries with low-income and emerging markets. They study forty Sub Saharan African countries. The results show that marketable domestic debt as a percentage of gross domestic product has significant effect on the growth of the economies. The study further reveals that domestic debt levels beyond 35 percent of total bank deposits negatively affect economic growth.

Adofu and Abula (2010) investigate the relationship that exists between domestic debt and economic growth in Nigeria for the period 1986 to 2005 using OLS regression technique. Their findings reveal that domestic debt affects the growth of Nigeria's economy negatively.

The relationship between external debt, domestic debt and economic growth in Nigeria was examined by Amassoma (2011). The results show that there exists bidirectional relationship between domestic debt and economic growth.

Charles (2012) reviews the relationship between domestic debt and Nigeria's economic growth. OLS, Error Correction and Parsimonious Models were employed to evaluate quarterly data from 1994 to 2008. The results of the study show that domestic debt and economic growth are negatively related.

**METHODOLOGY**

The purpose of this research is to investigate those factors that determine the level of domestic debt in the Nigerian economy. Specifically, the study will look at the relationship between domestic debt as the dependent variable while gross domestic product, export earnings, total revenue, treasury bills, external reserves and foreign direct investment as independent variables. For estimation purposes, annual time series were sourced from the statistical database of the Central bank of Nigeria for the periods 1981-2016; and the eview8 statistical software wasemployed to conductthe UnitRoottest for stationarity of the variables;theJohansen Cointegrationtest for long run equilibrium relationship,as well as the Dynamic ErrorCorrectionmodel to determine disequilibrium errors. Inline withthegoalofthe study,the functionalform of the model is as specified:

**DOD = f (EXPE, TREV, EXRES, FDI, GDP, TBILLS)……..1**

The econometric linear form is:

$$DOD_t = \alpha + \beta_1 EXPE_1 + \beta_2 TREV_2 + \beta_3 EXRES_3 + \beta_4 FDI_4 + \beta_5 GDP_5 + \beta_6 TBILLS_6 + \mu_t \ldots\ldots\ldots\ldots\ldots\ldots 2$$

**DOD** is domestic debt which includes loans from individuals, government and corporate investors.

**EXPE** is the earnings of a country that is generated through export of goods and services. Theoretically, when export earnings of a country improve (more funds injected into the system), the country will have more funds available to meet expenditures, and thus, would reduce borrowing.

**EXRES** is external reserves such as foreign currency deposits of central banks or other monetary authorities. They are assets of central banks held in different reserves currencies such as dollar, pound sterling, euro, yen etc.

**TREV** is revenue or any income or return accruing to the government of the federation from any source and includes any receipt, arising from the operation of any law; any return, arising from any property held by the government of the federation; any return, by way of interest on loans, and dividend in respect of shares etc.

**FDI** is foreign direct investment made by a company or individual in one country with business interests in another country, in the form of either establishing business operations or acquiring business assets in the other country, such as ownership or controlling interest in a foreign company.

**GDP** means gross domestic product which is the aggregate of goods and services produced in a country by its residents irrespective of their nationality.

**TBILLS** are short term securities issued for a tenor ranging from 91 to 364 days, such that the income received is the difference between the purchase price and the amount received at maturity. The government has greatly used Treasury bond window to borrow from the public to

finance the budget with the treasury bills' proceeds used mainly to roll over or redeem maturing debts. Here, proceeds from the sale of treasury bills are used to finance maturing debts. This increases their debt servicing capacity and reduces their total outstanding debt.

$\alpha$= intercept

$\beta_1, \beta_2, \beta_3, \beta_4\beta_5, \beta_6$= parameter estimates

$\mu_t$ = stochastic error term at time t.

The following are a priori expectations of the coefficients of the models

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5\ \beta_6 < 0$

**Results and Discussions**

**Table 4.1 Presentation of results of Unit root test for stationarity**

| Variables | ADF stat | PP stat | Critical value @5% | Prob. value | Order of integration |
|---|---|---|---|---|---|
| DOD | -5.042370 | -7.151912 | -1.951332 | 0.0000 | 1(1) |
| EXPE | -4.388235 | -6.389215 | -1.951332 | 0.0001 | 1(1) |
| EXRES | -4.409496 | -3.344787 | -1.951332 | 0.0001 | 1(1) |
| FDI | -2.944695 | -7.846471 | -1.951332 | 0.0045 | 1(1) |
| GDP | -5.565338 | -3.336920 | -1.951000 | 0.0003 | 1(1) |
| TBIL | -4.423161 | -4.613766 | -1.951332 | 0.0000 | 1(1) |
| TREV | -4.334398 | -6.538642 | -1.951332 | 0.0000 | 1(1) |

***Source: Output from Eviews 8***

From the analysis above, the null hypothesis that the variables are non-stationary is rejected at the 0.05 level of significance. This is because the Augmented Dickey Fuller and Phillip Perron test statistics are greater than its critical values. Thus, we can say that there exists no unit root among the variables in their first difference.

**Table 4.2 Presentation of results of Johansen test for cointegration**

| VARIABLE | TRACE STATISTIC | MAX-EIGEN VALUES | 0.05 CRITICAL VALUES | PROBABILITY |
|---|---|---|---|---|
| **DOD** | 528.6620 | 172.2333 | 46.23142 | 0.0000 |
| **EXPE** | 356.4287 | 118.9566 | 40.07757 | 0.0000 |
| **EXRES** | 237.4721 | 92.70694 | 33.87687 | 0.0000 |
| **FDI** | 144.7651 | 83.97010 | 27.58434 | 0.0000 |
| **GDP** | 60.79502 | 45.88570 | 21.13162 | 0.0000 |
| **TREV** | 14.90933 | 14.32314 | 14.26460 | 0.0489 |
| **TBIL** | 0.586191 | 0.586191 | 3.841466 | 0.4439 |

*Note: Both Trace and Max-Eigen values test shows six (6) cointegrating equations at the 0.05 level of significance.*
*Source: Output from Eviews 8*

From the estimation above, we opine that the null hypothesis of no cointegration among the variables study is strongly rejected at the 0.05 percent level of significance. That means domestic debt, export earnings, external reserves, foreign direct investment, gross domestic product; total revenue generation and treasury bills are cointegrating and as such have a long run equilibrium relationship.

**Table 4.3 Presentation of result of Dynamic Error Correction Model – Domestic Debt**

| D(DOD) | | | |
|---|---|---|---|
| **VARIABLES** | **COEFFICIENTS** | **T-STATISTIC** | **PROBABILITY** |
| D(EXPE) | -0.095878 | -3.588048 | 0.0014 |
| D(EXRES) | 1.486191 | 12.05310 | 0.0000 |
| D(FDI) | -6.946256 | -0.539711 | 0.5940 |
| D(GDP) | -0.421450 | -1.332330 | 0.1943 |
| D(TBIL) | 23.91691 | 1.571263 | 0.1282 |
| D(TREV) | 41.67230 | 0.080108 | 0.9368 |
| | | | |
| R-squared | 0.923827 | | |
| Adjusted R-squared | 0.903319 | | |
| F-statistic | 45.04703 | | |
| Prob(F-statistic) | 0.000000 | | |
| Durbin-Watson stat | 1.756712 | | |
| ECM(-1) | -0.294880 | | |

***Source: Output from Eviews 8***

In the domestic debt model, variations in the theoretical causants of national debt explain 92.38% of variations in domestic debt. This shows that export earnings and total revenue generated by the government are significant in predicting variations in Nigeria's domestic debt. In view of the greater $R^2$ achieved in predicting domestic debt,it is therefore concluded that the theoretical causants are more valuable in predicting Nigeria's domestic debt. In the short-run dynamics, there may be disequilibrium resulting to an "equilibrium error". The error term links the short-run behaviour of Domestic debt to its long-run value. Hence, the Error Correction Model to ascertain the proportion of the disequilibrium errors built up in the previous periods which can be corrected in the current period; and indicates the time lag for the correction to be completed. Our result gave a speed of adjustment of 29% with its

expected negative sign which shows that the ECM (-1) is statistically significant at the 5% level (t= -2.619216, p<0.0145).

**CONCLUSION AND RECOMMENDATIONS**

The short run [domestic debt] multiple result shows EXPE, EXRES, FDI and TBILLS signed according to apriori expectations. On the other hand GDP and TREV are not signed appropriately but show significant relationship. It could be observed that the coefficient of the multiple determinations – R-squared is 0.90 which is very high indicating that about 90% of the variation in domestic debt in Nigeria is explained by variations in export earnings, external reserves, foreign direct investment, gross domestic product, treasury bills and total revenue generation. The F-statistics is a perfect goodness of fit for the model. A statistic of 43.77264 with probability of 0.000000 and Standard deviation of 1046103 also indicate that the regression equation has a good fit. The results as shown by the Durbin Watson statistics of 1.933122 further indicate that the regression equation is free from the problem of autocorrelation.

Overall results from the study suggest that there is both short and long run relationship between domestic debt and the independent variables under consideration. Theoretically, an increase in a country's revenue and/or GDP would naturally reduce demand for debt and consequently, a negative relationship would be expected. Hence, if there is an increase in GDP and total revenue, the need to contract more debt financing should diminish. But the result of our analysis reveals the contrary, indicating that as GDP and revenue increases domestic debt also increase. This may arise because of the increasing capacity to service debts utilized in development projects. This is in tandem with Wagner's law of increasing state spending, which holds that for any country, that public expenditure rises constantly as income growth expands.

Studies have shown that there is a relationship between domestic debt and population (Isu, 1997). As a result of rising population, government is put under pressure to provide for social and infrastructural amenities for its citizens. Thus, as population increases, government borrows more to finance the social and infrastructural gap created by the rising population. We therefore recommend that the National Population Commission should step up campaign programmes to address population control.

**REFERENCES:**


Abbas, S. A., & Christensen, M. J. (2007). The role of domestic debt markets in economic growth: an empirical investigation for low-income countries and emerging markets(No. 7-127). International Monetary Fund.

Adenike, A. A., Adekunle, S. S. &Abiodun, E. O. (2007). The effects of external debt management on sustainable economic growth and development: Lessons from Nigeria. *Munich Personal RePEc Archive (MPRA) Paper,* No. 2147.

Adofu, I. &Abula, M. (2010).Domestic debt and the Nigerian economy.*Current Research Journal of economic theory,2*(1), 22-26.

Ajayi, E. A. (1989). Nigerian debt management experience.*J. Central Bank of Nigeria, 13*(2)**.**

Amassoma, D. (2011). External debt, internal debt and economic growth bound in Nigeria using a causality approach. *Current Research Journal of Social Sciences*, *3*(4), 320-325.

Anyanwu, J. C. &Erhijakpor, A. E. O. (2004).Trends and determinants of foreign direct investment in Africa, *West African Journal of Monetary and Economic Integration*, Second Half, *2*(2), 21-44.

Atique, R. & Malik, K. (2012).Impact of domestic and external debt on the economic growth of Pakistan.*World Applied Sciences Journal*, *20*(1), 120-129

Central Bank of Nigeria, (2014). Statistical Bulletin, Central Bank Nigeria December, 25, Retrieved 10 November, 2015 from "http://www.cenbank.org/

Charles, O. (2012). Domestic debt and the growth of Nigerian economy.*Research Journal of Finance and Accounting,3*(5), 45-56.

Domar, E. D. (1944). The "burden of the debt" and the national income.*The American Economic Review, 34*(4), 798–827.

Egbetunde, T. (2012). Public debt and economic growth in Nigeria: Evidence from granger causality. *American Journal of Economics*, *2*(6), 101-106.

Gbosi, A. N. (1998). The impact of Nigeria's domestic debt on macroeconomic environment.*First Bank Review Journal, 24*.

Isu, H.O. (1997). A Predictive Model for Nigeria's External Debt, *Journal of Finance, Banking and Investment*,*1*(1), 45-53.

Lerner, A. P. (1943). Functional finance and the federal debt. *Social research*, 38-51.

Momodu, A. A. (2012). Effects of debt servicing on economic growth in Nigeria.*Reiko International Journal of Business and Finance, 4*(3), 13-23.

Muhtar (2004).Effect of external debt on economic growth and development of Nigeria. *International Journal of Business and Social Science*, *3*(12).

Nwankwo, A.,(2011). Executive summary: Debt management office. Lecture presented at the University of Nigeria, Nsukka.

Nwinee, B. F. &Torbira, L. (2012).*Public Financial Management in Nigeria.* University of Port Harcourt press Ltd, Choba.

Nnamdi, I. S. &Omojefe, G. O. (2009). A prediction model for Nigeria's external debt: A Revisit. *Journal of Finance, Banking and Investment*, 3(1), 131-139.

Odozi, V. A. (1996). Nigeria's domestic public debt stock: An assessment. *CBN Debt Trend*, *20*(2).

Ogege, S., &Ekpudu, J. E. (2010). The effects of debt burden on the Nigerian economy. *Journal of Research in National Development*, *8*(2).

Onyeiwu, C. (2012). Domestic debt and the growth of Nigerian economy. Research Journal of Finance and Accounting, 3(5)

Sardoni, C. (2013). How to deal with the public debt: Ideas from Keynes, Lerner, Domar, and Hicks. *The Sapienza University of Rome*.

Uma, K. E., Eboh, F. E., &Obidike, P. C. (2013). Debt and debt service: Implications on Nigerian economic development. *Asian Journal of Social Sciences & Humanities*, *2*(2), 275-284.

Yucel, F. (2009). Causal relationships between financial development, trade openness & entrepreneurial development: The case of Turkey. *Journal of Social Science, 5(1), 33-42.*