Effect of External Borrowing and Foreign Aid on Economic Growth: The Case of Tanzania Using ECM Approach

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Abstract

The aim of this paper is to examine the effect of the external borrowing and foreign aid on economic growth in Tanzania over the period of 1992 to 2014 using ECM approach. The results reveal the presence of long-run cointegration among variables. The results shows that the foreign reserves, exchange rate and external borrowing have positive relationship and significant with economic growth while foreign aid has a negative and insignificant relationship with economic growth. The result also shows that the Foreign reserves, external borrowing, and exchange rate have a positive relationship and significant with economic growth in the short-run. The Tanzania government should look for another modality of foreign aid which can be more productivity to the economic development as well as to mobilize more domestic savings and revenue to reduce much dependence on foreign aid.

Keywords: External Borrowing, ECM, Foreign Aid, Economic Growth, Exchange rate, Tanzania

Introduction

External borrowing can be regarded as a source of supporting capital formation. Tanzania like any other developing country in the world depends largely on external borrowing for financing its development projects via annual budget. Tanzania is influenced by inadequate capital formations contributed by low productivity, low levels of domestic savings and low levels of domestic income. For this situation, Tanzania needs for external assistance both technical and financial support to adjust the deficit arising in the annually national budget. Hence, this has been seen as a major block for implementing its development projects. This leading Tanzania to seek external borrowings from the World Bank, International Monetary fund and other developing partners to financing the development projects. Gorah et al. (2012) suggested that countries take external debt for many reasons on which their income is low, with budget deficit or having low investment. Moreover, Soludo (2003) recommended that countries take external debt for two reasons, either for macroeconomic purposes or to finance the transitory balance of payments deficits aimed to improve the countries" economy and poverty reduction as well. Tanzania started to obtain external borrowing since 1970s and the funds allocated and implemented in the various development projects such as infrastructures, heavy industry, etc. These funding can be used to finance the projects are obtained in the form of borrowing and grants. Tanzania had to adopt various policies as conditioned by World Bank and International Monetary Fund to make some structural adjustment programmed (SAP) in her economic policy before external borrowing provided. Tanzania is the one amongst the developing country had taken significant actions to open its economy. Muganda (2004) investigated that in order to resolve the continual rigorous economic disaster which confronted the country since the late 1970s; Tanzania signed an agreement with the World Bank (WB) and the International Monetary Fund (IMF) in 1986 to adopt Structural Adjustment Programmes (SAPs). The reforms of Tanzania categorize in to three phases; liberalization (1986-1995), derailed reforms (1992-1995) and booming reforms (1996-2004). The programmes include Economic Recovery Programme (ERP), Economic and Social Action Plan (ESAP) and the Priority Social Action Plan (PSAP). External Debt of Tanzania was US\$151 billion in 1992 and US\$ 30billion in 2014. In addition, Foreign Aid has risen from f US\$1,334 million 1992 to US\$2,647 million in 2014. Mc Groarty et al. (2009) observed that Tanzania has become the East African's top recipient of international aid with Official Development Assistance (ODA). The observed result of this study will provide positive signs on some effective techniques of finally helping Tanzania to attain managing of external borrowing and foreign aid levels. Most of the loans were on the basis of bi-lateral and multi-lateral in the short-term and long-term loans. Next section of this paper presents the review of literature. The methodology and empirical model are in section 3 followed by Section 4 provides discussion of the result and empirical evidence. Lastly, concluding remarks presented in section 5.

Related literature Review

Many preceding studies on the associationship between external debt and economic growth revealed mixing results; that some researchers showed positive, some negative and others no significant relationship as well. Akram (2015) investigated on is public debt hindering economic growth of the Philippines for the period of 1975 to 2010 employed autoregressive distributed lag technique. The results revealed public external debt has negative and significant associationship with economic growth and investment confirming the existence of debt overhang effect. Moreover the study indicated the domestic debt has a negative relationship with investment and positive associationship with economic growth. The study suggested Philippine's government must discourage on reliance on external debt and adopt policies that reduce their debt burden in order to increase economic growth and policy makers should use domestic debt as a tool to stimulate real GDP and keep an eye on the penalty of domestic debt in the investment.

Edegbite et al. (2008) aimed to test the impact of Nigerian's external debt on economic development using neoclassical growth model. Their results portrayed that there is negative effect of debt on economic growth and external debt contributes positively to growth up a point after which its contributions become negative reflecting the presence of nonlinearity in effect. The study also showed the proper management of external funds by creating on improving debt management structures and decision making process and external finance should only be source to prioritize project and applied on well-appraised and self-liquidating projects. Moreover, the study reported a nonlinear effect of debt on private sector investment which pre-supposes the existence of a turning point which represents an maximum level for employing of external funds. Finally the study suggested that government should make fiscal adjustments by cutting down expenditure and reduce level of deficit financing which exerts pressure on foreign exchange.

Farhana and Murshed (2014) argued on impact of foreign debt on growing in Bangladesh: An econometrics analysis for the period of 1972 to 2010 using Auto-Regressive Distributive Lag model (ARDL). Their results showed a significant adverse effect of debt on economic growth and external debt service is a burden for its nation ad causes the GDP to go down. In addition, this study suggested Bangladesh should find out any means to terminate the debt and invest in human resource development and improve infrastructure development. Finally, the study suggested that debt management should be effective, fair and exports, FDI and remittances are useful for the economic growth in Bangladesh. Ochieng et al. (2014) advocated on the effect of foreign aid on economic growth in developing countries for the period of 1970 to 2010 employed panel fixed-effect model of Hausman, Solow growth Model and the Levin Lin-Chu approach. Their results portrayed the external debt has negative significant effect on per capita GDP growth rate in the EAC. The study suggested to the policy makers to reduce the external debt burden in order to promote rapid economic growth in East African Community member countries. Mweni et al. (2016) investigated on time series analysis of the relationship between GDP growth rate and external debt in Kenya for the period covered from 1964 to 2012 using Unit Root test. Their results revealed a negative GDP growth has negative relationship with external debt and there is no statistically significant associationship between GDP growth and external debt. The researchers suggested that the government should focus on policies that motivate economic growth as a way becoming self dependent for internal resources and ensuring that funds are utilized in productive investments to enhance the ability of the country to meet debt payment when due.

Sergius et al. (2016) explored on external debt and economic growth: the Nigeria experience for the period of 1980 to 2013 using Unit Root, Co-integration and Error Correction Model. Their results reveals in the short-run, external debt and exchange rate had positive associationship with gross domestic product but they have negative associationship with GDP in the long-run whilst external debt service payment had negative relationship with GDP. In addition, the paper showed that exchange rate fluctuation had positive effect on Nigerian economy but external debt stock, and debt service payment had negative effect on economic growth. Finally the study recommended that debt management office should set mechanism to ensure loans were utilized for the purposes of acquired and set ceiling of borrowing for states and federal governments based on well-defined criteria.

Onyekachi and Ogiji (2016) based on impact of deficit financing on economic stability in Nigeria: Analysis of economic growth for the period of 1970 to 2013 employed regression analysis. Their results showed that external source of deficit financing, non-banking public source of deficit financing and exchange rate have positive and significant impact on economic stability proxy for gross domestic product whilst ways and means source of deficit financing, banking system source of deficit financing and interest rate have negative impact on economic stability in Nigeria. The study recommended that government deficit financing through external source of deficit financing will maintain economic stability wile government deficit financing through banking system source of deficit financing and means source of deficit financing will reduce economic growth thereby causing instability in the economy.

Sebastine et al. (2016) based on effect of external borrowing and foreign aid on economic growth in Nigeria for the period of 1980 to 2013 employed Ordinal Least Square techniques (OLS), Unit Root, Johansen Cointegration Test and Error Correction Model. Their results observed that external dept and external dept have positive and significant effect on economic growth. Faraji and Makame (2013) based on impact of external debt on economic growth: A case study of Tanzania for the period of 1990 to 2010 using Unit Root and Johansen Cointegration Test. Their results showed external debt has positive and significant relationship on economic growth and the debt service payment has a negative associationship with economic growth. The researchers suggested that government should be keen on debt management profile in particularly expenditure and borrowing funds should be utilized on productive projects. In addition, government should establish credible data base to provide timely, accurate and comprehensive data to requisite stakeholders for the purpose of disclosure and DSA. Moreover, government should establish a transparency loan cycle that covers the activities for project identification, appraisal and approval, loan negotiation, loan disbursements, project implementation, monitoring, evaluation and loan payment, this will provide good governance and hence economy will grow in Tanzania as well. Lastly but not finally, government should provide a policy framework which create conducive environment that will encourage internally and externally investors' confidence to invest in the country.

Ram (2004) conducted on the effect of recipient count's policies and the effect of foreign aid on economic growth in developing countries. The study revealed that policy has no task to persuade foreign aid even in those situation where the ordinary constrain models indicate such an influence. Furthermore, the results observed that no suggestion of beneficiary country's policies having any role in the outcome of foreign aid on economic growth even in the ordinary constrained stipulations. Finally, the study indicated that there is small empirical evidence to support the widely disseminated view addressing foreign aid in the direction of countries with high-quality policies instructions to more economic growth and better poverty reduction in developing countries.

Amassoma (2014) explored on the linkage between foreign aid and economic growth of Nigeria using time series data covering from 1981 to 2012 using Co-integration test and OLS. The results show that foreign aid has negative and significant relationship with economic growth. Amassoma (2014) conducted on Nigeria government should improve the quality of governance; ensuring that the foreign aid flows invested into development projects that in turn will promote the economic growth and lessen the poverty in the country as well as to implement economic, political and institutional transformations so as to address the problem of persistent corruption in Nigeria.

Alesina & Dollar (2000) examined the effect on who gives foreign aid to whom and why found that some forms of distribution of foreign aid from different donors to recipients countries. They also revealed that the trend of foreign aids is ordered as much by political and planned deliberation. This shows that political coalitions and colonial former are regarded as major bases of foreign aid to recipient countries. They also showed the important dissimilarities in the conduct of different donors. Moreover, they revealed that more foreign aids flow to those countries characterized with high level of political coalitions.

Brautigam & Knack (2004) conducted on the effect of Foreign aid, institutions and governance in Sub -Saharan Africa. Their findings showed that there is strong statistical relationship among high foreign aid levels in Africa and decline in governance mostly when they accurate the trend of donors to provide more foreign aid to African countries with improving slightly than worsening governance. In addition, the result observed there is comparison association between higher foreign aid levels and lower tax share of Gross Domestic product. Moreover, they also indicated that improved in gross domestic product per capita tends to be linked with increases in governance while political violence is linked with deteriorations in governance and in the tax share of GDP.

Foreign aids was not effective at spurring macro-economic growth in most of less developing countries, however, (**Burnside A. C & Dollar, 1997**) claimed that aid works well in the good-policy environment, which has important policy implications for donors community, multilateral aid agencies and policymakers in recipient countries. They also the results suggested that the foreign aids is effectiveness on the contingent macro policy environment of recipient countries. However, this is more essential to recipient countries with good policies but has low impact with poor macro-economic environment. The donors will provide foreign aids to countries with good policy already set up and implemented in recipient countries.

Esther O. et al. (2008) investigated on the impact of Nigeria's external debt on economic development for the period of 1980 to 2005 using neoclassical growth model approach. Their results indicated that external debt has negative and significant relationship with economic development. External debt also contributes positive to growth to a certain level thereafter it becomes negatively and significant to economic growth. Further, the study suggested that government should make fiscal policy via cut of expenditures in order to reduce the level of deficit financing which produce pressure on foreign exchange. Moreover, the study recommended a non linear

effect of debt on private sector investment which pre-supposes the existence of turning point which present maximum level for an employing of external funds.

Methodology

In this paper we used time series secondary data covering the period of 1992 to 2014 relating to Tanzania. The variables used in this study are: Growth Domestic Product (GDP), Foreign Reserve (FRE), Foreign Assistance (FA), External Debt (EXD) and Official Exchange Rate (EX). The data were collected from different sources in the World Bank through World Bank indicators. GDP was collected from World Bank national accounts data and OECD National Accounts data files, FRE was collected from Development Assistance Committee of the Organization for Economic Co-operation and Development, EXD collected from World Bank, International Debt Statistics and EX was collected from International Monetary Fund, International Debt Statistics. To establish the long-run and short-run relationship amongst variables unit root techniques and Error Correction Model (ECM) were used in this study through calculations made within the EVIEWS 8.0 software. In addition to that we test for OLS, diagnostics and stability of the model to check the stability of our model. The above procedures are explained in the subsequently part of the paper underneath.

Empirical Model

The empirical model can be specified as follows;

 $GDP_t = f(FRE_t, FA_t, EXD_t, EX_t)\varepsilon....(1)$

Explicitly the above equation can be stated thus:

 $GDP_{t} = \alpha_{0} + \alpha_{1}FRE_{t} + \alpha_{2}FA_{t} + \alpha_{3}EXD_{t} + \alpha_{4}EX_{t} + \varepsilon_{....(2)}$

Where;

GDPt = Economic Growth measured by GDP annual growth rate at time t.

FREt= Foreign Reserve measured by net change in country's holdings of international reserves resulting from transactions on the current, capital and financial accounts at time t.

FAt = Foreign Assistance measured by net official development assistance (ODA) at time t.

EXDt = External Debt measured by total external debt stocks to gross national income at time t.

EXt = Official Exchange rate measured by exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market at time t.

 α_{0} = Intercept term

t = Represents time period from 1992 to 2014

 ε = White noise error term

Rationale of the selected variables of the model

Economic growth can be driven by many factors (exchange rate, inflation, financial and infrastructure), but for our analysis four variables were employed, such as Foreign Reserve (FRE), Foreign Assistance (FA), External Debt (EXD) and Official Exchange rate (EX). The foreign reserve (FR) is the amount of foreign currency reserves that are held by Central Bank of a country and can play fundamental role in the economic growth and major component of GDP. Foreign Reserve is measured by net change in country's holdings of international reserves resulting from transactions on the current, capital and financial accounts. We expect Foreign Reserve to have positive and significant relationship with economic growth. The foreign assistance (FA) is the financial or technical help given by one country's government to another country to assist social and economic development

of the country. Foreign assistance is an important to improve country's economy and become independent and move towards democratic fundamentals with the help of donor countries. Foreign Assistance is measured by net official development assistance hence. We expect Foreign Assistance to have positive and significant associationship to the economic growth. External debt (or foreign debt) is the total debt of a country owes to foreign creditors, complemented by internal debt owed to domestic lenders. The debtors can be the government, corporations or citizens of the country. External Debt is measured by total external debt stocks to gross national income. We anticipate External debt to have positive and significant impact with economic growth. Official Exchange rate (EX) is the rate that determined an independently and influence the economic growth. Official Exchange Rate is measured by exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. We expect Official Exchange Rate to have negative relationship to the economic growth.

Results and Discussion

Table 1: Descriptive statistics

Variables	Mean	SD	Min	Max
GDP	5.314601	2.222796	0.584322	8.464381
FRE	1.33E+08	1.09E+09	-5.95E+08	4.86E+09
FA	1.77E+09	8.36E+08	8.67E+08	3.43E+09
EXD	70.74488	47.76498	22.03718	165.83
EX	1005.278	412.4171	297.7081	1654.005

Source: author's computation using Eviews 8

The table 1 represents the results of descriptive statistics, the growth in Gross Domestic Product (GDP): The mean of growth in growth domestic product was 5.314601 and standard deviation was 2.222796. The GDP growth range varies from 0.584322 to 8.464381 as a minimum and maximum respectively. The nasty in Foreign Reserve (FRE): The mean of growth in FRE was 1.33E+08 while standard deviation was 1.09E+09. The FRE growth range varies from -5.95E+08 minimum and 4.86+09 maximum. The growth in Foreign Assistance (FA): The mean of growth in FA was 1.77E+09 and standard deviation was 8.36E+08. The FA growth range varies from 8.67E+08 to 3.43E+09 maximum and minimum respectively. The growth in External Debt (EXD): The mean of growth in EXD was 70.74488 and standard deviation was 47.76498. The EXD growth range varies from 22.03718 as a minimum and 165.8300 as a maximum as well. The growth in Exchange Rate (EX): The mean of growth in EX was about 1005.278 whilst the standard deviation was 412.4171. The EX growth range varies from 297.7081 as a minimum to 1654.005 as a maximum.

	ADF			РР				
	AT LEVEL		AT 1 ST DIFFERENCE		AT LEVEL		AT 1 ST DIFFERENCE	
Variables	t-stat	Prob*	t-stat	Prob*	t-stat	Prob*	t-stat	Prob*
GDP	- 2.927653	0.0598	- 4.969195	0.0008***	- 2.594949	0.109	-8.999742	0.0000***
FRE	- 4.601865	0.0016	- 5.397893	0.0003***	- 4.604558	0.0015	- 15.796999	0.0000***
FA	0.352624	0.9751	- 5.776379	0.0001***	- 0.763866	0.8098	-8.883426	0.0000***
EXD	- 1.589018	0.4712	-3.12001	0.0404**	- 1.532983	0.4987	-3.12001	0.0404**
EX	-0.74388	0.8152	- 4.333668	0.0030***	- 0.891163	0.7715	-6.342542	0.0000***

Table 2: Augmented Dickey-Fuller and Phillips-Perron Unit root

Source: author's computation using Eviews 8

Based in results on table 2 of Unit Root test using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP). The results show that under both methods variables of GDP, FA, EXD and EX are not stationeries at level but they become stationeries after converting them into first difference. In addition to that, only variable FRE shows that it is stationery at level and also becomes stationery after converting into the first difference as well. The

results imply that the variables in the same model are all integrated of the same order which means we can proceed to the Error Correction Model.

Co-integration test through ECM

The Engle-Granger test of co-integration was employed and found the favor of a long-run relationship among variable with an economic growth. When the residual of this model become stationary and regression model is not spurious. Hence, we did unit root for this residual by using Augmented Dickey Fuller (ADF) test. We have to use critical value of the Engle Granger test. The Engle Granger critical value at 10% is 4.4345 (absolute value). The t-statics was absolute value 4.9945 greater than the critical value of the Engle granger 4.4345, we can reject the null hypothesis and accept the alternative hypothesis, so the residual is stationary, and this means that our estimated model is not spurious. The results show that there is presence of long-run relationship economic growth and explanatory variables associated in the model as shown in Table 3.

Table 3: Co-integration test result

Variable	Level	MacKinnon Critical value	Remarks
ECM	-4.9945	-4.43451	Stationary

Source: Author's computation using Eviews 8

t-Variable Coefficient Prob* Std. Error Statistic С 6.124593 2.418153 2.532756 0.0208** FRE 4.67E-10 2.67E-10 1.748774 0.0474** FA -1.42E-09 7.12E-10 1.991516 0.0618* EXD 0.02992 0.013377 2.236677 0.0382** EX 0.003861 0.002072 1.863969 0.0387** Rsquared 0.735683 Fstatistic 12.52498

Table 4: Long-run estimation

statistic) 0.000048 Source: Author's computation using Eviews 8

We used the ordinary least square (OLS) to regress for the long-run estimation. Table 4represents the results after generating variables using OLS method. The result shows that foreign reserves, external borrowing and exchange rate have statistically significant and positive relationship with economic growth. This implies that these macro-economy policies can stimulate the economic development in Tanzania. However, the foreign aid have negative relationship but statistically significant with economic growth at 0.0618 significance level. This means that foreign aid cannot stimulate economic growth in Tanzania. This result is consistent with Ochieng et al. (2014).

ECM short-run causality

Prob(F-

Table 5 represents the results of short-run estimate by using Error Correction Model (ECM). The estimated coefficient of the error correction vector is 0.2727. This means ECM (-1) is the speed of adjustment correcting back disequilibrium at the rate of 27.27 percent annually. The negative sign and the significant probability signify the existence of co-integration among variables. This shows that approximately 27% of the previous year's disequilibrium in the economy is corrected in the long-run. The result of the short-run in the table 5 indicates that foreign reserve (FRE), foreign aid (FA) and exchange rate (EX) have positive and significance relationship with economic growth. However, external debt has negative and insignificant relationship with economic growth. This implies that foreign aid and external debt inflows are very significant for promoting economic development of Tanzania.

Variables	Coefficient	Std. Error	t-Statistic	Prob*
С	-1.126715	0.627	-1.796995	0.0939*
D(FRE)	9.82E-10	2.44E-10	4.015137	0.0013***
D(FA)	8.45E-10	7.47E-10	1.131602	0.0276**
D(EXD)	-0.037608	0.03239	-1.161095	0.265
D(EX)	0.018834	0.007431	2.534568	0.0238**
ECM(-1)	-0.2727	0.62047	0.4395	0.0436**

Table 5: short-run estimation

Source: author's computation using Eviews 8

 Table 6:
 Diagnostic test.

	Obs*R-	F-statistic	Prob*
	square		
Serial correlation: Breusch-Godfrey Serial	5.413563	2.22682	0.0668
Correlation LM Test			
Heteroscedasticity Test: Breusch-Pagan-Godfrey	8.355726	2.009231	0.1377

Source: author's computation using Eviews 8

The researcher also checked diagnostic test of the residuals of serial correlation using Breusch-Godfrey Serial Correlation LM test and heteroscedasticity test using Breusch-Pagan-Godfrey test in the table 6. The serial correlation tests suggests that there is no evidence of serial correlation amongst residuals as shown by the probability value of 6.68%, the null hypothesis of no serial correlation is accepted at 5% level of significance and probability value of 13.77% indicates that there is no heteroscedasticityin the model as well. Therefore, the model is well designed and does not suffer from any econometric problems.





The figure I shows the test of normality of the residuals using Histogram-Normality test. The residual normality test of probability approximately 67.58% reveals that residuals are multivariate normal, the null hypothesis of residuals are normally distributed is accepted at 5 percent level of significance. This implies that residuals are normally distributed.

Figure 2: Test of stability



The figure 2 shows the stability of the model using CUSUM test at 5% significance level. From this figure shows that the model of the data are stable because blue line is within the red lines which implies that the model is good.

Conclusion

The aims of this paper are to examine empirically the effect of the external borrowing and foreign aid on economic growth in Tanzania covering the period of 1992-2014 used secondary data set from World Bank. The variables used such as Foreign Assistance and External Debt regarded as independent variables whilst Economic Growth regarded as dependent variables and the rest such as Foreign Reserve and Official Exchange Rate regarded as controlled variables. The data was checked for stationarity using ADF and PP. in addition, the ECM approach was used to determine the existence of long-run and short run as alternative technique for cointegration. The results indicated that the existence of long-run co-integration among variables involved in the model. Moreover, the OLS was used to regress for the long-run estimation. The results show that the foreign reserves, external borrowing and exchange rate have positive relationship and significant with economic growth while foreign aid has a negative and insignificant relationship with economic growth. This result is consistent with Sebastine et al. (2016), Faraji and Makame (2013), Onyekachi and Ogiji (2016). The result shows that the Foreign reserves, Foreign aid, and exchange rate have a positive relationship and significant with economic growth while external borrowing has negative relationship but insignificant with economic growth in the shortrun. Finally we checked diagnostic test of the residuals of serial correlation and heteroscedasticity test. The results revealed that there was neither serial correlation nor heteroscedasticity in the model respectively. The Tanzania government should look for another modality of foreign aid which can be more productivity to the economic development as well as to mobilize more domestic savings and revenue to reduce much dependence on foreign aid. Further, the study suggested that government should make fiscal policy via cut of expenditures in order to reduce the level of deficit financing which produce pressure on foreign exchange. We suggest further research on effect of domestic revenue and foreign direct investments inflows in economic growth.

References

- Akram (2015), "is public debt hindering economic growth of the Philippines?", International Journal of Social Economics, Vol. 42, Issue 3, pp. 202-221, Publishers Emerald, DOI: 10.1108/IJSE-02-2013-0047.
- Alesina, Alberto, & Dollar, David. (2000). Who gives foreign aid to whom and why? *Journal of economic* growth, 5(1), 33-63.
- Amassoma, Ditimi. (2014). The Linkage between Foreign Aid and Economic Growth in Nigeria. *International Journal of Economic Practices and Theories*, 4(6), 1007-1017.
- Brautigam, Deborah A, & Knack, Stephen. (2004). Foreign aid, institutions, and governance in sub-Saharan Africa. *Economic development and cultural change*, 52(2), 255-285.
- Burnside, Craig, & Dollar, David. (2004). Aid, policies, and growth: reply. *The American Economic Review*, 94(3), 781-784
- C. Soludo (2003), Debt Poverty and Inequality, in OkojoIweala, Soludo, and Muntar (Eds), The debt trap in Nigeria, African World Press NJ. 23-74.

- Edegbite, Ayadi and Felix (2008) "the impact of Nigerian's external debt on economic development" International Journal of Emerging Market, Vol. 3, Issue 3, pp. 285-301, Publishers Emerald, DOI: 10.1108/17468800810883693
- Esther O. Folorunso S & Felix O. (2008), "the impact of Nigeria's external debt on economic development", International Journal of Emerging Markets, Vol. 3, Iss 3, pp. 285-301, Publishers Emerald Group Publishing Limited, DOI: 10.1108/17468800810883693
- Faraji and Makame (2013) "impact of external debt on economic growth: A case study of Tanzania", Advance in Management & Applied Economics, Vol. 3, Issue 4, pp. 59-82, Publishers Sciennpress Ltd.
- Faraji and Makame (2013) "impact of external debt on economic growth: A case study of Tanzania", Advance in Management & Applied Economics, Vol. 3, Issue 4, pp. 59-82, Publishers Sciennpress Ltd.
- Farhana and Murshed (2014) "impact of foreign debt on growing in Bangladesh: An econometrics analysis", International Journal of Developing and Emerging Economics, Vol. 2, Issue 4, pp. 1-24, Publishers European Centre for Research Training and Development UK.
- Gohar, Bhuto and Butt (2012) "The impact of external debt servicing on the growth of law-income coutries", International Conference on Business Management
- Muganda, Tanzanian's Economic Reform and Lesson Learned, The World Bank report, Washington, D. C., (2004).
- Mweni, Njnguna and Oketch (2016) "time series analysis of the relationship between GDP growth rate and external debt in Kenya", International Journal of Economics, Commerce and Management, Vol. IV, Issue 7, ISSN 2348-0386, Publishers United Kingdom.
- Ochieng, Kiprop, Kalio and Gisore (2014) "effect of foreign aid on economic growth in developing countries", African Journal of Business Management, Vlo. 8, Issue 21, pp. 1011-1018, Publishers Academic Journals, DOI: 10.5897/AJBM2014.7418.
- Onyekachi and Ogiji (2016) "impact of deficit financing on economic stability in Nigeria: Analysis of economic growth", Journal of Applied Finance and Banking, Vol. 6, issue 1, pp. 111-125, Publishers Scienpress Ltd.
- Ram, Rati. (2004). Recipient country's 'policies' and the effect of foreign aid on economic growth in developing countries: additional evidence. *Journal of International Development*, *16*(2), 201-211.
- S. Mc Groarty, D. Vorisek and A. Zaidi(2009), Tanzania Country brief, The World Bank Report, Washington.
- Sebastine, Okafor and Chrstian (2016) "effect of external borrowing and foreign aid on economic growth in Nigeria", International of Academic Research in Business and Social Sciences, Vol. 6, Issue 4, ISSN: 2222-6990, Publishers HRMARS.
- Sergius, James and Ifeanyi (2016) "external debt and economic growth: the Nigeria", European Journal of Accounting, Auditing and Finance Research, Vol. 4, Issue 2, pp. 33-48, Publishers European Centre for Research Training and Development UK.