



Impact of National Debt on Economic Growth in Tanzania: 1980-2019

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Authors' contributions

This work was carried out in collaboration between both authors. Authors LLL designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author DDN managed the analyses of the study, literature searches and final report qualifications. Both authors read and approved the final manuscript.

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ABSTRACT

This paper is based on the study that examined the impact of external and domestic debt on economic growth of Tanzania over the period 1980-2019. The study's specific objectives were; to examine trends of external and domestic debts from 1980 to 2019, to determine long run relationship between external debt stock and economic growth in Tanzania from 1980 to 2019, and to examine the long run relationship between domestic debt and economic growth in Tanzania from 1980 to 2019. The study used time series data of Tanzania collected from the Bank of Tanzania (BOT), National Bureau of Statistics (NBS) and the World Bank indicators. The study used Vector error correction model (VECM) for estimation of the time series since all the variables' data were stationary in first difference I (1), and there was cointegration within the variables. To ensure the validity and reliability of the data; the study carried out normality test, multicollinearity, heteroscedasticity, and unit root tests. The empirical findings reveal that both external and domestic debt significantly affects the economic growth of Tanzania. The study recommends that the government should promote moderate levels of domestic borrowing which can be sustained as it promotes economic growth if used in productive and efficient avenues. The study further recommends that policymakers should efficiently allocate and develop

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constraints that will ensure the external borrowing is utilized on more productive and development expenditures, so that the finance is a source of increase in net investment in the country.

Keywords: National debt; economic growth; Tanzania.

1. INTRODUCTION

The External Debt Statistics as in the Guide for Compilers and users jointly published by the Bank for International Settlements (BIS), Eurostat, The Organization for Economic Co-operation and Development (OECD), Paris Club, The United Nations Conference on Trade and Development (UNCTAD), the World Bank and chaired by International Monetary Fund [1] states that: Many countries in the world do borrow in order to finance various sectors of their economies especially industry, energy, transport and communication, education and agriculture among others which results in external debts. Tanzania is not an exception in this regard In this regard is not an exception; for some good reasons the Government has borrowed and has been borrowing funds to finance some projects due to budget deficit or having low investment in the country on condition to repay the loan within a specific period of time. BOT, [2] recently revealed that the national debt stock hit US \$ 18,951,747,968 equivalent to 43 trillion TZS in July 2018, it is 38.7% share of GDP which is about three times what it was 10 years ago. The new indebtedness was an increase of 13.9 trillion of what the public debt was in July 2008. The debt increased by 29.1 trillion between July 2008 and July 2018. This is economically detrimental and puts in awkward fiscal posture and the country's creditworthiness locally and internationally becomes doubtful creating fear of debt crisis especially if the money borrowed were not well invested in projects that generate returns for loan repayment. According to Ndullu [3] a significant proportion of development investments (including textile and other factories, transport and power infrastructure) were financed through external debt, and its low productivity greatly resulted in debt servicing problems. Debt servicing is identified as a serious threat to economic growth of any country especially for low income countries like Tanzania.

Perkins [4] argued that foreign borrowing for a country is necessary especially if the borrowed funds are used to finance economic development. However, too much foreign borrowing and borrowing to finance consumption

or poor investment can lead to crowding out effect in a country big trouble. A country's debt portfolio has to be prudently managed to ensure that they reap the gain while avoiding the possibility of crisis. The magnitude of the external debt of developing countries has caused their policy - makers to feel that this poses severe financial obstacles to national development. Debt – service payments have to be made at the expense of foregoing a number of projects and efforts to meet human needs. Although many empirical studies confirm that FDI have positive impact on economic growth, yet the size of such impact may vary across countries depending on the level of institutional framework necessary to foster investment as well as specific policies to enable the host economy reap the benefit from foreign direct investment (FDI). This ambiguity inhibits our understanding required to promote economic growth and set clear investment policies. In addition, the question arises whether external debt has an impact on economic growth in Tanzania.

Increasing the use of both internal debt and external debt stock become a matter of concerns in Tanzania, it is the effort made by the government to provide infrastructures (roads, railway, communication network, schools power etc.) That generate economic growth over the years Tanzania is sourcing external financing but, yet the economy is not growing proportionally. Slow economic growth is not necessarily caused by huge external debt; it is inability of a nation to meet its debt service payment triggered by the inadequate knowledge on the nature, structure and magnitude of the debt in question

It is no exaggeration that, this is the major challenge faced by Tanzanian economy. The inability of the economy to effectively meet its debt servicing requirements has exposed the nation to a high debt service burden. The resultant effect of this debt service burden creates additional problems for the nation particularly the increasing fiscal deficit which is driven by higher levels of debt servicing. This poses a grave threat to the economy as a large chunk of the nation's hard earned revenue is

being eaten up. Tanzania's external debt outstanding stood at TZS Tsh 5.242billion in 1980 from TZS Tsh. 18.6 billion 2018 (NBS) [5]. As at the end of December 2010, Tanzania had received cancellation of debts worth USD 2,724.5 million from Paris club group of creditor nations. The question then becomes why has external borrowing not accelerated the pace of growth of the Tanzanian economy? There are various empirical studies that have been conducted to investigate the impact of national debts on economic growth and have arrived at different results using the same scope of study [6] This research intended to build on validating the existing studies by increasing the coverage period, adding new experiences from Tanzania and adding some variables that are not included in most literatures and excluding some of the variables that are included to study long run relationship between national debts and economic growth in Tanzania. The broad objective of this study was to analyze the impact of domestic debt and external debt on economic growth in Tanzania from 1980 to 2019.

2. LITERATURE REVIEW

2.1 Overhang Debt Theory

Myers [7] presents debt overhang as excessive debt that inhibits investment, arising from the fact that the benefits derived by the firm using high risky financing accrue largely to existing debt holders instead of shareholders. In other words, high level of public debt is crowding out private investment. Again debt overhang is presented present/exists when a country's debt accumulation is greater than its strength and capacity of repayment in the future. According to Krugman [8], the debt overhang theory shows that if there is some likelihood that in the future debt will be larger than the country's repayment ability; expected debt-servicing costs will discourage further domestic and foreign investment because the expected rate of return from the productive investment projects will be very low to support the economy as the significant portion of any subsequent economic progress will accrue to the creditor country. Monogbe [9] maintains that the inability of the present generation to service the borrowed fund may be transfer transferred to the future generation as a debt burden.

2.2 The Dual-Gap Theory

Omoruyi [10] stated that most economies have experienced a shortfall in trying to bridge the gap

between the level of savings and investment and have resorted to external borrowing in order to fill this gap. This gap provides the motive behind external debt as pointed out by which is to fulfill the lack of savings and investment in a nation as increases in savings and investment would vis-à-vis lead to a rise in economic growth. The dual-gap analysis provides a framework that shows that the development of any nation is a function of investment and that such investment requires domestic savings which is not sufficient to ensure that development take place. The dual-gap theory is coined from a national income accounting identity which connotes that excess investment expenditure (investment-savings gap) is equivalent to the surplus of imports over exports (foreign exchange gap).

2.3 The Dependency Theory

The dependency theory seeks to outline the factors that have contributed to the development of the underdeveloped countries. This theory is based on the assumption that resources flow from a "periphery" of poor and underdeveloped states to a "core" of wealthy states thereby enriching the latter at the expense of the former. The phenomenon associated with the dependency theory is that poor states are impoverished while rich ones are enriched by the way poor states are integrated into the world system. Momoh and Hundeyin [11] elaborate that the dependency theory can be explained by the underdeveloped country's lack of close integration, diffusion of capital, low level of technology, poor institutional framework, bad leadership, corruption, mismanagement, etc. Momoh and Hundeyin [11] see the underdevelopment and dependency of the third world countries as being internally inflicted rather than externally afflicted. To this school of thought, a way out of the problem is for third world countries to seek foreign assistance in terms of aid, loan, investment, etc, and allow undisrupted operations of the Multinational Corporations (MNCs). Due to the underdeveloped nature of most Least Developed Countries (LDC's), they are dependent on the developed nations for virtually everything ranging from technology, aid, technical assistance, to culture, etc. The dependent position of most underdeveloped countries has made them vulnerable to the products of the Western metropolitan countries and Breton Woods institutions [12]. The dependency theory gives a detailed account of the factors responsible for the position of the developing countries and their constant and

continuous reliance on external for their economic growth and development.

2.4 Empirical Review on External Debt and Economic Growth

Wamboye [13] evaluated the impact of public external debt on long term economic growth of forty least developed countries (LDC's) using unbalanced panel data from 1975 – 2010. The findings on this study suggest that high external debt depresses economic growth, regardless of the nature of the debt. In addition, debt relief initiatives are crucial as evidenced in the lower negative debt effects on growth in the heavily indebted poor countries (HIPC's) sub - sample relative to non - HIPC's. Michael and Sulaiman [14] examined the impact of external debt on the level of economic growth and the volume of investment in Tanzania for the period 1980 – 2008. The results of their analysis indicate that there exists a positive relationship between external debt, economic growth and investment. Their findings indicate that external debt ratio of GDP stimulates growth in the short - term; the private investment which is a measure of real and tangible development shows a decline. According to Benedict et al. [15] a large external debt can also affect growth through the crowding out effect or by affecting the composition of private investment. An increasing debt service may increase the government's interest bill and the budget deficit and consequently, cause the long-term interest to rise or simply crowd out credit available for private investment Baldacci and Kumar [15]. Similarly, heavy debt burdens acts to reduce investment through both debt overhang and the crowding out effect [16]. Chauvin and Kraay [17]; show that debt relief in 62 developing countries between the years (1989 – 2003) did not improve the institutional quality nor lead to economic growth. In summary the previous literature on the impact of domestic and external debt on economic growth are inconclusive.

While some studies show a positive relationship, other studies indicate a negative influence on economic growth, consequently providing ambiguous results. This ambiguity necessitates a further investigation particularly for where the trend of FDI flows is on increase. On the other hand, external debt as another source of finance has been increasing on yearly basis due to deficit budget especially for development projects. The burden to the nation is extremely high as the external debt tends to attract interest. Malik,

Hayat, and Hayat [18] explored the relationship between external debt and economic growth in Pakistan for the period 1972 – 2009, using time series econometric technique. Their result shows that external debt is negatively and significantly related to economic growth. The evidence suggests that increase in external debt will lead to decline in economic growth. Hameed et al. [19] on Pakistan analyzed the long run and short run relationships between external debt and economic growth. Annual time series data from 1970 to 2008 was obtained to examine the dynamic effect of GDP, debt service, capital stock and labour force on her economic growth. The study concludes that debt servicing burden has a negative effect on the productivity of labour and capital, thereby adversely affecting economic growth.

2.5 Empirical Review on Domestic Debt and Growth

Domestic banks often hold a large amount of government debt. In the case of India, for instance, more than 50 per cent of government bonds are held by local banks [20]. In HIPC countries, domestic bank holdings of government debt average 61 per cent of total domestic debt and range between 33 (Bolivia) and 94 (Ethiopia) per cent of the total IMF [21] reports that in investigating a sample of 65 low income countries, the finding reveal that domestic debt is approximately 21 per cent of total debt but it absorbs 42 per cent of the total interest bill. Given its long-term nature, concessional external debt is also likely to be safer (from the borrower's point of view) than domestic debt which often has short maturity and is subject to rollover risk. In fact, UNCTAD [22] suggests that in Africa increasing reliance on domestically issued bonded debt had a negative effect on both interest cost and financial stability.

2.6 Conceptual Framework

The dependent variable for this study is real economic growth; *which is represented by real Growth domestic products* (RGDP). RGDP indicates economic performance of a country. It indicates the value of goods and services produced in particular period normally a year adjusted for inflation. A similar measure was used as a representative of the economic growth rate in other studies from different parts of the world Kasidi and Said [23] and Babu et al. [24] on the impact of public debt on economic growth. The independent variables for this study are

external debt and domestic debt, external debt is approximated by the total external debt of a country; it is expected to have either a positive or a negative effect on economic growth. Internal debt or domestic debt is approximated as the part of the total government debt in a country that is owed to lenders within the country. According to Mmari and Lotto [25] it is expected to have either a positive or a negative effect on economic growth. Apart from public debt, other endogenous variables have been shown to affect economic growth. Therefore, this study introduces foreign direct investment (FDI), external debt services (EXTDS), Net trade in goods and services (NETRD) and real exchange rate (FEXCH) as control variables for the study. Real exchange rate (FEXCH) it is how much it costs to exchange one currency for another; it is measured as a nominal exchange rate (E) times the ratio of the price levels. According to Lee [26] FDI inflows is expected to have a positive effect on economic growth. External debt services (EXTDS), the series of payments (principal and interest) which is mandatory to be done throughout the existence of the debt. According to Kasidi and Said [23] external debt servicing is expected to have a negative effect on economic growth of Tanzania.

Net trade in goods and services (NETRD) is defined as the transactions in goods and services between residents and non-residents. It is measured in million USD, as percentage of GDP for net trade, and also in annual growth for exports and imports. According to Sandri, Alshyab, and Ghazo, [27] Net trade in goods and services is expected to have a positive effect on economic growth.

3. METHODOLOGY

The targeted area of this research is the united republic United Republic of Tanzania where by the researcher used time series data to examine the impact of national debts on economic growth from 1980 to 2019. Since one of the specific objectives is to examine trends of domestic and external debts, the study wanted to examine the trends before and after the commencement of liberalization of the economy. That way it was revealed whether liberalization eased public debt or made it worse, the study had wanted to research on data spanning from the independence year of Tanzania, however, reliable data for the same for some variables of interest could not be found, so the study had to settle for 1980 - 2019. The data analysis for this

study was executed by Stata; this data analysis software makes it easy to execute all common econometric tests [28]. However, since the data had been collected in their nominal form, the study deflated all the data into real values by dividing the nominal values with inflation throughout the years of observation. Furthermore, since the data proved to be non-stationary at level as well as exhibiting cointegration within the variables, the study employed a vector error correction model (VECM) in determining the long term as well as short term effects of exchange rate volatility on economic growth.

3.1 Theoretical Model

The study adopted the augmented production function specified by Fosu [29-30]. which expresses economic growth as a function of labour, capital and exports. The importance of labour and capital in the growth function derives from neoclassical theory whilst the robustness of exports in the growth model is attributed to its generally avowed significant contribution to growth [29-30]. The model was adopted since it resonates the endogenous growth model which allows for incorporation of other variables into the production function. The augmented production function is specified as:

$$Y_t = b_1 + b_2l_t + b_3k_t + b_4x_t + \varepsilon_t \dots\dots\dots 1$$

Where Y is growth rate of output; l denotes labour force growth rate; k represents growth rate of capital, x is growth rate of exports; and ε is the error term.

However, because the objective is to see how growth output is influenced by public debt the production function is modified to;

$$Y_t = b_1 + EXTDT_t + INTDT_t + \varepsilon_t \dots\dots\dots 2$$

Whereby; Y is growth rate of output, EXTDT denotes External Debt, INTDT is Dometic Debt, and ε is error term.

3.2 Model Specification

According to the debt overhang and liquidity constraint hypotheses investment is the main channel of the debt-growth nexus. The debt overhang posits that when a country accumulates huge debts, it beacons an eroding fiscal space, creating uncertainty in investors'

minds thereby discouraging investment. A liquidity constraint, on the other hand, binds on a country when external debt service requirement reduces the financial resources available for investment into the economy. Otherwise, a fall in current debt service obligations should result in a rise in current investment for a given level of future loan. Moreover, because this study intended to ascertain the direct effect of public debt on economic growth, it did not trace the impact of the debt through investment but rather direct, but at the same time added investment (FDI) and external debt services (EXTDS) into the model. Additionally, in order to avoid model misspecification for leaving out crucial variables that also affects economic growth. The study adopted endogenous growth theory by David and

Loewy [31]. which is an extension of the traditional neoclassical exogenous growth model that allows the incorporation of endogenous variables into the traditional neoclassical production function. Therefore, the study incorporated other macroeconomic policy-related variables into the model; these variables have also been used by previous studies on the effect of public debt on economic growth. They include; Exchange Rate (FEXCH), Net trade in goods and services (NETRD) in addition to Foreign Direct Investment (FDI) and external debt services (EXTDS). By using a multiple regression model since it enables the prediction of one variable on the basis of several other variables, the theoretical equation 2 was specified to;

$$RGDP_t = \beta_0 + \beta_1 EXTDT_t + \beta_2 INTDT_t + \beta_3 FDI_t + \beta_4 FEXCH_t + \beta_5 NETRD_t + \beta_6 EXTDS_t + \epsilon_t \dots \dots \dots 3$$

Where, 't' denotes time period. To estimate properly the parameters and facilitate the interpretation, β_0 = base constant,

$\beta_1 - \beta_5$ = is the coefficients of the independent variables or change included in RGDP by each independent variable.

RGDP is the GDP and is the dependent variable and indicates economic performance of a country. It indicates the value of goods and services produced in particular period normally a year adjusted for inflation. EXTDT refers to the total external debt of a country. It can be used as a determinant of macroeconomic growth. According to International Monetary Fund (IMF) 'Gross external debt' is the amount at any given time, of disbursed and outstanding contractual liabilities of residents of a country to non-residents to repay principal, with or without interest, or to pay interest, with or without principal. It is argued that a highly indebted economy is perceived to be in trouble. (INTDT) Internal debt or domestic debt according to Wikipedia is the part of the total government debt in a country that is owed to lenders within the country. Foreign direct investment inflow (FDI) according to Wikipedia it refers to a controlling ownership in a business enterprise in one country. It includes the value of inward direct investment made by nonresident investors in the reporting economy, including reinvested earnings and intra company loans. FDI provide external capital and advanced technology to the economy

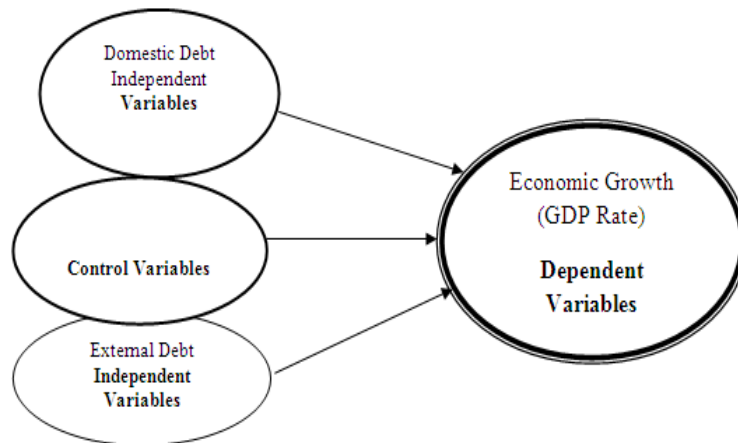


Fig. 1. Conceptual framework of the study

which acts as the engine for economic growth. FEXCH (real exchange rate) it is inflation – adjusted and gives a measure of competitiveness, and is useful variable for explaining trade behavior and national income. NETRD (Net trade in goods and services) is the offsetting of export and import of goods and services.

3.3 Estimation Model

By taking into account the public debt and economic growth of Tanzania trends between

1980 – 2019, in addition to the fact that all the variables for this study were not stationary in level but rather in first difference, which led to a cointegration test to prove the existence of at least two cointegrating equations, meaning there exist a long run relationship between the variables. It was necessary to make use of the Vector error correction model (VECM) because of its ability to estimate both short and long run relationship between variables. Therefore, equation 3 is modified to the following VEC estimation model.

$$\Delta RGDP = \theta + \sum \beta g \Delta RGDP - g + \sum_{i=1}^{k-1} \zeta_i \Delta EXT_{t-1} + \sum_{i=1}^{k-1} \phi_i \Delta INT_{t-1} + \sum_{i=1}^{k-1} \delta_i \Delta FDI_{t-1} + \sum_{i=1}^{k-1} \lambda_i \Delta NETRD_{t-1} + \sum_{i=1}^{k-1} \rho_i \Delta FEXCH_{t-1} + \eta ECT_{t-1} + \epsilon_t \dots\dots\dots 4$$

Whereby;

All the variables are as defined in equation 2 and 3, and δ , ζ , λ , ρ and ϕ are the short-run dynamic coefficients of the model's convergence to equilibrium, η is the speed of adjustment, θ is the intercept, t is time trend and ϵ_t are white noise errors, ECT_{t-1} is the lagged error correction term derived from the long-run cointegration model.

4. RESULTS AND DISCUSSION

4.1 Trends of Domestic Debts from 1980 to 2019

One of the specific objectives of the study was to examine the public debts trends in Tanzania from 1980 to 2019, by capturing the trends the study was close to uncovering what events may have led to differing trends in public debts throughout the observation period, Fig. 2 and Fig 3 below depicts those trends.

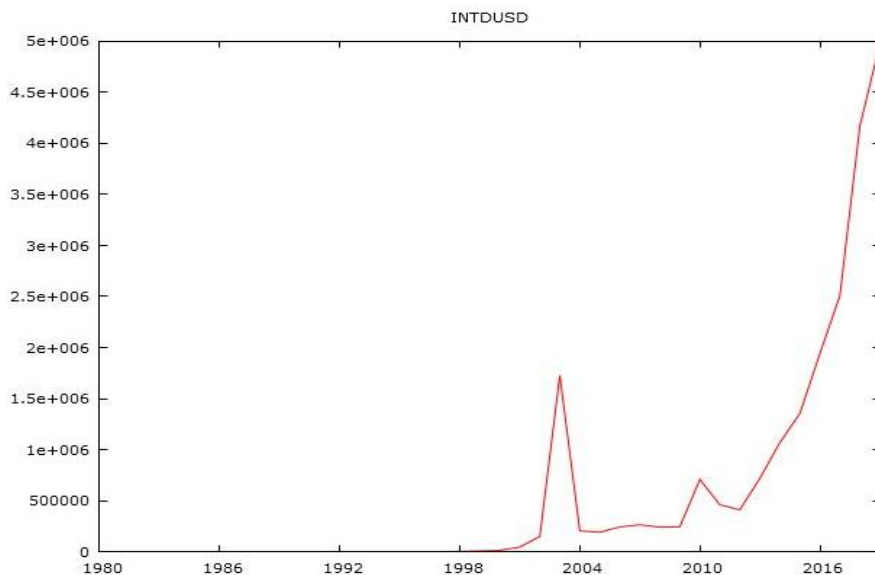


Fig. 2. Showing trends of domestic debts from 1980 to 2019

From Fig. 2 it is shown that domestic debt in Tanzania between 1980 and 2000 was fairly constant, the debt rose slightly between 2001 and 2002, but there was a steep rise in 2003 after which the debt again dropped in 2004, the debt remained in the same range up to 2010 when it rose again. However, from 2012 the country has seen a steep and consistent rise of external debt up to 2019.

4.2 Trends of External Debts from 1980 to 2019

From Fig. 3 it is shown that external debt in Tanzania between 1980 and 1995 were fairly constant, the debt rose between 1995 to 2004 after which the country experienced a drop in debt up to 2010 when there was another rise followed by another drop in 2011. However, from 2012 there has been a steep and constant rise up to 2019.

4.3 Long Run Effects of External Debt Stock and Domestic Debt on Economic Growth in Tanzania from 1980 To 2019

The study used Vector Error Correction Model for estimation of the long-run effects of the dependent and independent variables as presented in Tables 1.

It should be noted that as indicated in Table 1 RGDP is positioned as the dependent variable.

4.4 The Long Run Effect of External Debt Stock on Economic Growth in Tanzania from 1980 To 2019

In the long run external debt stock has a $2.19e-07$ units positive effect on economic growth, thus in the long run a unit increase in external debt causes an increase of $2.19e-07$ units of economic growth of Tanzania *ceteris paribus*. This result is statistically significant at 1% level of significance; therefore, the finding of this study leads to the rejection of the study's hypothesis that 'there is no significant long run relationship between external debt stock and economic growth in Tanzania'. The finding of this study is inconsistent with the conventional view of debt in which there will be a crowding-out effect on the private investment when the economy is facing high debt problem [32]; Chudik, Mohaddes, Hashem Pesaran & Raissi [33]; De Vita, Trachanas, & Luo [34]; Shahor [35], the effect is valid for the long-run. It happens when the

interest rate starts to increase as the governments borrow more funds in the loanable funds market. An increase in the interest rate will demotivate investors from investing in a country. If this condition persists, the economic growth will face an adverse effect in the long-run.

Lower economic growth that is caused by high public debt can also be explained through the overlapping generations' model, where the increase in the public debt will be partly used up national savings that were meant for the future generation. A reduction in the level of national savings will force the interest rate to increase, thus demotivate incoming investors. Lower investments will result in lower capital accumulation, leading to lower economic growth. Apart from that, the negative relationship can also be explained theoretically using the debts overhang [8]. Debt overhang happens when the highly indebted countries have a lower present value of the national income relative to their total accumulated debt [36]; Ewaida [37]. One possible reason is the inefficiency of the country to manage the borrowed funds [38]. Instead of channeling the borrowed funds to productive purposes, the governments choose to use the funds to pay previous debts, or to finance operating expenditures which are normally non-productive in nature. Consequently, these funds which are not being used for productive purposes will not create significant value added to the economy, thus contributing to lower economic growth.

On the other hand, the finding of this study in the long run is in support of earlier studies by Maana et al [39] who argue that if appropriately channeled for productive purposes, moderate levels of external debt could have a positive effect on the economy. The finding also in support by reports by other authors who posits that external debt can contribute to higher economic growth, for instance, Malaysia [38] and European countries [40]. Even though this view has a negative perspective on public debt to economic growth, it also has a positive standpoint on the two series. An increase in debt will help to stimulate aggregate demand and output, among others, via the employment generation and productive investment. So in the case of Tanzania, it seems the funds borrowed externally have been appropriately channeled during the period of investigation. Therefore, it is important for the government to be alert on the debt threshold that can switch the debt's effect from positive to negative.

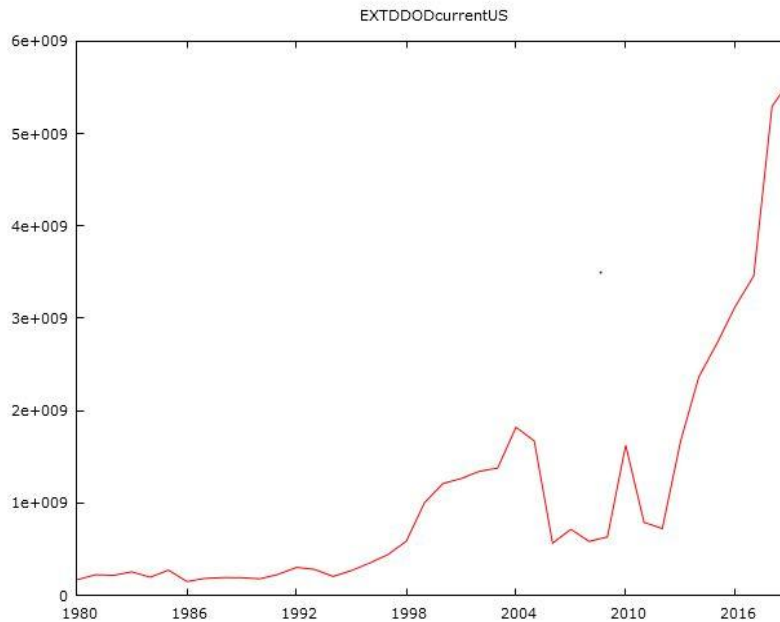


Fig. 3. Showing trends of external debts from 1980 to 2019

Table 1. VECM Results - Long-run effect

Cointegrating equation

Equation	Palms	Chi ²	P>Chi ²
_Cel	5	608.1923	0.0000

Identification: beta is exactly identified
Johansen normalization restriction imposed

	beta Coef.	Std. Err.	z	p> z	{95% conf Interval}	
_Cel						
GDPpercertainUSPPP	1	-	-	-	from	to
EXTDSTScurrentUS	7.94e ⁻⁰⁷	5.89e ⁻⁰⁷	1.35	0.178	-3.61e ⁻⁰⁷	1.95e ⁻⁰⁶
EXTDODcurrentUS	-2.19e ⁻⁰⁷	2.98e ⁻⁰⁸	-7.33	0.000	--2.77e ⁻⁰⁷	-1.60e ⁻⁰⁷
FDIBoPcurrentUS	-4.52e ⁻⁰⁶	2.74e ⁻⁰⁷	-16.51	0.000	-5.06e ⁻⁰⁶	-3.98e ⁻⁰⁶
NETRD	-1.27e ⁻⁰⁶	9.43e ⁻⁰⁸	-13.51	0.000	-1.46e ⁻⁰⁶	-1.09e ⁻⁰⁶
INTDUSD	.0004387	0.000036	12.17	0.000	.0003681	0.0005093
_cons	32.9495	-	-	-	-	-

4.5 The Long Run Effect of Domestic Debt Stock on Economic Growth in Tanzania from 1980 To 2019

In the long run domestic debt has a 0.0004387units negative effect on economic growth on average *ceteris paribus*, thus in the long run a unit increase in domestic debt causes decrease to the economic growth of Tanzania by 0.0004387units, this result is statistically

significant at 1% level of significance, therefore, the finding of this study leads to the rejection of the study's hypothesis that 'there is no significant long run relationship between domestic debt stock and economic growth in Tanzania'. The finding of this study in are inconsistent with Babu, et al. [16] who argue that moderate levels of domestic debt could have a positive effect on the economy, more so if the debt is marketable. Debt that is securitized, bears positive real interest

rates and is diversely held is found to be robustly friendlier to growth. However, the finding is in line with WB and IMF [1] who posits that domestic debt has a negative effect on the economic growth of the country, the argument is that domestic borrowing can lead to crowding out of private sector investment and hence a decline in economic growth.

5. CONCLUSION

The main focus of this study was to establish the long – run effect of domestic and external debt on the economic growth of Tanzania. Based on annual data from 1980 to 2019 the effect was analyzed using Vector Error Correction Model; the following main conclusions are obtained: Firstly, there is a significant long-run effect of domestic debt on economic growth (RGDP) of Tanzania. Therefore we reject null hypothesis that there is no significant relationship between domestic debt and economic growth of Tanzania. Secondly, there is a significant long-run effect of external debt on economic growth (RGDP) of Tanzania. Therefore, we reject null hypothesis that there is no significant relationship between external debt and economic growth of Tanzania. Thirdly, the study concludes that with the exception of Net trade in goods and services in which the finding was insignificant, the rest of the macroeconomic variables used in this study had a significant effect on the economic growth of Tanzania for the period of observation.

6. RECOMMENDATIONS

Estimation results revealed a negative long run relationship between of domestic debt and economic growth of Tanzania. Therefore, the government should only promote moderate levels of domestic borrowing which can be sustained and only if the funds can be used in productive and efficient avenues as it promotes economic growth. However, domestic debt is usually expensive and should be minimized since it has wider negative macroeconomic effects for instance, if interest rate on treasury bills rise, banks target treasury bills and not lending to borrowers, interest rates and inflation also goes up.

The finding also revealed a significant positive relationship between external debt and economic growth of Tanzania, since studies have indicated that used appropriately external force can be a powerful tool for a country's economic growth.

The government should ensure that export receipts and other foreign currency non-debt creating flows need to be increased above and beyond the growth of foreign exchange payments and growth of external debt and liabilities. Additionally, given access to cheap external finance options, the governments should preferably avoid seemingly expensive borrowing in preference to concessionary loans and grants from international financial institutions of expenditure.

To limit the growth of public debt burden and to avoid future debt traps, it is essential that significant real growth in revenues is achieved while undertaking a simultaneous rationalization. Policymakers should efficiently allocate and develop constraints that will ensure the external borrowing is utilized on more productive and development expenditures, so that the finance is a source of increase in net investment in the country. The government may also reduce the expenditures on debt servicing by skillfully negotiating with the donor agencies and countries. Furthermore, the government should carefully analyse the economic condition of the country by considering the purposes of the borrowings, the sources of the borrowings along with the ability of the country to pay back. Since each country has its own uniqueness and capabilities, a standard threshold cannot be applied to all.

The finding of the study revealed that in the long run foreign direct investment has a statistically significant positive effect on economic growth of Tanzania. Therefore, the government should create an investment friendly environment to attract more investments in supporting the national income; imposing higher taxes to replace debt might not be a good move for all countries especially for low and middle-income economies. The governments can embark with other fiscal initiatives such as providing tax incentives, with an aim to boost the private sector's contribution as an engine of growth.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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