

The Impact of External Debt on Economic Growth: Evidence from Southern Africa

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Abstract An ARDL panel model is employed to explore the relationship between external debt and economic growth in 9 Southern African countries over the period 2000-2018. The empirical results show that short term external debt negatively affects economic growth over the long haul just as in the short run while long term external debt shows a negative connection with economic growth for the short run and a negative significant connection among debt and economic growth over the long haul insinuating the external funds gained are not being utilized for economic activities such as investment, capital formulation and technology. These discoveries demonstrate the requirement for policymakers in Southern Africa to not exclusively depend on external debt as a means to stimulate economic growth but should utilize aggressive techniques to improve and advance their economies.

Keywords: ARDL, economic growth, external debt, GDP, Southern Africa

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1. Introduction

External debt is a vital cradle of finance that is mainly used to enhance the domestic sources of funds needed to support the development and other needs of a country. When a country experiences deficiencies of local reserve funds and remote trade that are needed to achieve developmental projects, it results in a country needing additional funds and that is where external debt comes in. It is however essential for this external debt to be used on income-generating activities in order to have the option to reimburse back the debt deftly. It is prominently argued that excessive debt constitutes as a stumbling block to manageable financial development and destitution reduction. [1]

The global recession period of 2009 which resulted from the financial turmoil of 2007 caused by crashing of the US housing market and the subsequent failure of the US banking system, consequently resulted in the governments worldwide battling to recuperate from the aftermath of this crisis. Various policymakers around the world developed a contingency plan solely based on fiscal intervention. This global crisis brought about enormous government debt which is more detrimental than crowding out and this can be seen by the sovereign debt default cases reached by several European countries that have needed hefty bailouts by the international financial institutions [2]. Despite it appearing at face value that the untimely effects of the credit crunch has had a more acute effect on the western and other industrialized countries,

the effect of the crisis on developing countries is just as salient [3].

African economies have been historically characterized by fiscal governments that have obtained high debt levels beholden to outer loan creditors, for example, the International Development Association (IDA), International Monetary Fund (IMF), African Development Bank (ADB), what's more, other worldwide money related foundations. The failure of the government to finance the much required expenditure projects exclusively through the collection of tax revenues has resulted in the dependence on debt resonated by the African economies. Therefore, African governments have been constrained to borrow through channels of issuing of bonds, treasury bills and other debt securities which are regarded to be safe financial instruments towards international investors. Consequentially, this government borrowing is intended to galvanize the economy by investing the funds from the outside financial specialists into the local economy. At the center of the debate lies the question regardless of whether public debt is useful or unsafe to economic growth of African economies. Additionally, the cost of obligation towards African governments has been of long worry to scholastics and policymakers [3].

Various research has been conducted to examine the correlation between external debt and economic growth mostly for Latin America and for developing countries. Recent studies have focused on Africa in general or Sub-Saharan Africa (SSA). Notwithstanding, the nature or magnitude of obligation and different variables that could influence the connection between debt and economic development differ from region to region. The credit

policies of respective and multilateral loan specialists ought to be founded on the idea of the connection between external debt and economic growth in Southern Africa just as the developmental policies that are in place should be pertinent to Southern Africa. It is in this way cardinal to examine the connection between debt and economic growth in Southern Africa. Consequently, this paper investigates the impact that external debt has on the economic growth of 9 Southern African countries using cross country panel data. The remainder of the paper is sorted out as follows; the second section empirically summarizes how external debt has affected the economic growth of various economics, the third section presents the current debt situation in the region, the fourth part gives the specification of the econometric models and the estimation techniques used and interprets these results. Lastly the fifth section presents the conclusion and offers some policy implications in view of the outcomes obtained.

2. Literature Review

[4] find that emerging markets have a lower threshold compared to the developed economics for public and private external debt. At the point when the debt arrived at 60 percent of the GDP, the annual growth will reduce by 2 percentage points. The growth rate can decrease as much as 50 percent if the levels significantly increase. [5] find that low economic growth can cause high levels of debt. [6] find that the impact of debt on economic growth is positive and highly significant by using data from the Euro area countries from 1981 to 2014 that. [7] used OLS with information covering the period 1980-2013, the outcome appeared to demonstrate external debt impacted negatively on the economic success in Zimbabwe. [8] Analyzed the effect of debt on the economic development of Zambia using the ARDL model, and find that external debt has a positive relationship with economic development in the short run however a negative connection between debt and economic development exists. They further explained that the accumulation of debt is detrimental to the economic generation of Zambia thus confirming the debt overhang problem currently in Zambia. [9] also used ARDL model to research the aforesaid matter in question, the results showed that debt and its obligation services have a negative effect on the GDP of Pakistan. [10] analyzed the Gross domestic product development and debt obligation in Angola using a SAC- Spatial autocorrelation model, the Hans- Philips linear spatial dynamic model and the spatial 3sls model using data from 2004 to 2015 with results revealing that public expenditure increases GDP growth but that debt decreases it in Angola. [11] using a group of 48 Sub-Saharan African countries from 1990-2017 empirically investigated the ramifications of debt obligation on economic spread using the General Method of Moments (GMM). Their results supported significant detrimental link between external debt and economic enlargement. They further added that external debt accumulated in the early stages promotes economic growth thus having a beneficial impact on the GDP.

The impact of external debt on economic growth may be non-linear. [12] argue that, using data from 40 countries that are gathered into advanced and improving nations, there is no proof for an all-around threshold impact in the connection between open debt and economic development once the effect of worldwide components and its spillover effects are represented. Be that as it may, paying little mind to the threshold, they locate a critical long time effect of open debt yielded on economic development. [13] addressed the matter of break impacts between government debt and economic development. With the results stipulating that this relationship relies upon the debt breaks; that is at the debt levels before 2000, the increase in the government debt to-Gross domestic product proportion prompted insignificant consequences for the economic development. While as government debt rises after 2000, its impact on economic development declines and its influence on economic growth becomes negative.

3. Current Debt Situation in Southern Africa

According to the [14] public debt in southern Africa continued to increase from 2010-19. The traditional method that is used to estimate debt sustainability has classified 16 countries in Africa in debt distress or at a high danger of obligation trouble. Angola, Mozambique and Zimbabwe are currently in debt distress and Zambia is at a high risk of joining them. Therefore, the debt situation requires urgent intervention and the extent to which this debt will affect the economic advancement of Southern Africa needs to be looked into extensively. It is predicted that the government debt will continue to swell well beyond 2020. [Figure 1](#) shows the general government gross debt from 2010 to 2020.

Public debt in the period 2010-19 continued to rise for most countries in Southern Africa. Strict global financial conditions and the decline in investor sentiments towards Southern Africa's emerging markets was instrumental to a reversal in capital inflows and higher financing costs. Public debt has heightened especially in Mozambique and Zambia. The depreciation of the exchange rate in Zambia and a lack of full disclosure of the magnitude of public debt in Mozambique contributed to the deterioration in their debt-to-GDP ratios. In 2018, as a result of persistent exchange rate depreciation in Angola and Zambia, the government debt rose briskly. Additionally the variations in the anatomy of debt has made many countries powerless against changes in financing conditions. Coercive financing has resulted in half of the total public debt in Zambia and Zimbabwe and in excess of 30 percent in Mozambique. Towards the end of 2017, Mozambique and Zimbabwe were ranked in the debt distress under the IMF and World Bank debt sustainability framework. Zambia's previously moderate ratings were changed to high danger of debt trouble. [Figure 1](#) shows how the general government debt has been rising from 2010 and is still projected to keep rising till 2020.

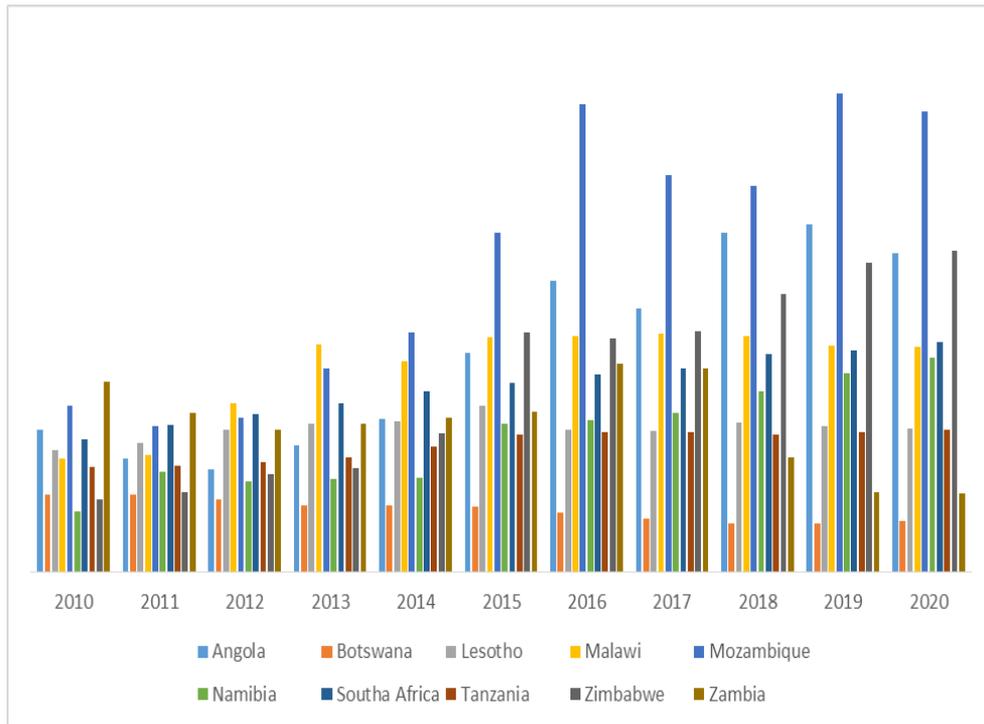


Figure 1. General government gross debt from 2010 to 2020 (Source: IMF statistics)

In 2010 to 2014, the total public debt as a level GDP was moderately low in most Southern African countries and lower than the proposed maximum of 60 percent except for Mozambique and Zimbabwe. From 2016 to 2018, the debt levels in Southern Africa remained sustainable with ESwatini recording the lowest debt levels followed by Botswana. In 2019, the governments of the nations in Southern Africa have made a committed decision to reduce their debt accumulation mainly due to the increase in the debt servicing which is proving costly for the growth of their economies.

4. Methodology and Data

In order to test the contingency of a long-run connection between the reliant variable real GDP and the independent variables, the author applied an Autoregressive Distributed Lag Model (ARDL) which was developed by [13]. This model was implored because it is able to capture the long run dynamics without losing the short run dynamics. Thus resulting in unbiased estimates in the long run with the results obtained in the short run efficient despite them being in a smaller sample size [16]. This is important because it avoids the issues that arise from serial correlation and endogeneity [13]. Additionally, ARDL is pertinent whether the repressors are purely I(0) or purely I(1) or mutually integrated.

4.1. Model Specification

The model explores the linear relationship between output growth and debt burden indicators and is stated as follows:

$$Y = f(SD, LD, INV, TR, INF) \tag{1}$$

Where
Y= real GDP growth at time

SD = Short term Debt
LD= Long term debt
INV= Investment
TR= Trade
INF= Rate of Inflation

The linear relationship between output growth and the debt burden indicators will, considering all the variables, be rewritten as:

$$Y_{it} = \beta_0 + \beta_1SD_{it} + \beta_2LD_{it} + \beta_3INV_{it} + \beta_4TR_{it} + \beta_5INF_{it} + \varepsilon_{it} \tag{2}$$

The author implored the use of the lag of the variables to ensure that the parameters being examined report elasticities which are vital in economic literature. This is evident from [17] who carried out a similar research and implored the use of the lags of the variables. Inflation is not lagged because it contains negative values. Hence equation 2 is transformed into equation 3 considering the lags of the variables and the new equation is written as:

$$\ln Y_{it} = \beta_0 + \beta_1 \ln SD_{it} + \beta_2 \ln LD_{it} + \beta_3 \ln INV_{it} + \beta_4 \ln TR_{it} + \beta_5 \ln INF_{it} + \varepsilon_{it} \tag{3}$$

The ARDL model approach starts with construction and estimation of the following unrestricted error correction model (UECM) using OLS to ensure for the occurrence of long run connection between the variables under consideration.

$$\Delta Y_{it} = \phi_i Y_{it} + \alpha_i X_{it} + \sum_{j=0}^k \theta_{ij} * \Delta Y_{it-j} + \sum_{j=1}^k \alpha_{ij} * \Delta X_{it-j} + \varepsilon_{it} \tag{4}$$

But

$$\begin{aligned} \phi_i &= \sum_{j=1}^k \theta_{ij}, \\ \alpha_i &= \sum_{j=0}^l \sigma_{ij}, \\ \theta_{ij} &= \sum_{p=j+1}^k \theta_{ip} \\ \sigma_{ij} &= \sum_{p=j+1}^l \sigma_{ip} \end{aligned}$$

Equation 5 is therefore obtained by substituting the above relations of the respective parameters ($\phi_i, \alpha_i, \theta_{ij}$ & σ_{ij}):

$$\begin{aligned} \Delta Y_{it} &= \phi_i (Y_{it-1} - \alpha_i X_{it}) + \sum_{j=1}^k \theta_{ij} \Delta Y_{it-j} \\ &+ \sum_{j=0}^k \alpha_{ij} X_{it-j} + \varepsilon_{it} \end{aligned} \tag{5}$$

Where, Δ is first difference operator, Y_{it} is the vector of dependent variables, X_{it} is the vector of independent variables, K is the number of lags and ε_t is the error term which is deduced to be white noise. The augmented model taking into account short term debt will be rewritten as follows:

$$\begin{aligned} \Delta GDP_{it} &= \phi_i [Y_{it-1} - \alpha_i (\ln SD_{it})] + \sum_{j=1}^k \theta_{ij} \Delta GDP_{it-j} \\ &+ \sum_{j=0}^k \theta_{ij} \Delta \ln SD_{it-j} + \varepsilon_{it} \end{aligned} \tag{6}$$

Taking the equation above, the augmented model incorporating the dependent variable GDP and the co-dependent variables short term debt and long term debt will be written as:

$$\begin{aligned} \Delta GDP_{it} &= \phi_i [GDP_{it-1} - \alpha_i (\ln SD_{it} + \ln LD_{it})] \\ &+ \sum_{j=1}^k \theta_{ij} \Delta GDP_{it-j} + \sum_{j=0}^k \theta_{ij} \Delta \ln SD_{it-j} \\ &+ \sum_{j=0}^k \theta_{ij} \Delta \ln LD_{it-j} + \varepsilon_{it} \end{aligned} \tag{7}$$

The augmented model considering all the variables under scrutiny is stated as follows:

$$\Delta GDP_{it} = \phi_i [GDP_{it-1} - \alpha_i (\ln SD_{it} + \ln LD_{it} + \ln INV_{it} + \ln TR_{it} + INF_{it})] \tag{8}$$

The above model will be evaluated using the ARDL model for the purpose of testing for the long run relationship as well as the short run dynamics.

4.2. Data Source and Type

The current study used time series data from 2000 to 2018 obtained from the World Development Indicators (WDI). The argument of this research is that a macroeconomic framework linking the different sectors of the economy is needed to be able to fully analyze the effect of external debt on economic growth. As such macroeconomic variables augmented with debt were implored. The definition of the variables implored are as

follows: GDP per capita (2010 constant US\$), Short-term debt (% of total external debt), Long-term debt (proxied by external debt stocks long term DOD, current US\$), Investment (proxied by gross capital formulation % of GDP), Trade (% of GDP) and Inflation (GDP deflator annual %).

Table 1 gives a descriptive statistic of the studied variables. The table includes the mean, standard deviation and the least and most extreme values of the dependent and independent variables. Results from the summary statistics illustrate that the mean ranges from 1.775 in short term debt to 13.502 in inflation with a minimum value of -16.761 to a maximum value of 418.019. From the standard deviation, we can deduce that the variations are large enough to explore the variations in the data.

Table 1. Summary of descriptive statistics

	lnGDP	lnSD	lnLD	lnINV	lnTR	INF
Max	8.934	3.626	5.565	4.014	5.087	418.019
Min	5.547	-7.131	1.705	1.891	3.485	-16.761
Mean	7.238	1.775	3.712	3.169	4.321	13.502
Std.d	1.050	1.839	0.681	0.3872	0.376	37.97

4.3. Results and Discussion

4.3.1. Cross-sectional Reliance and Correlation of the Variables

The CD test first used by [18] is employed using the variables to ascertain whether the panel data has cross-sectional reliance. The results from this test are unveiled in Table 2. Referring to the results obtained from Table 2, the null hypothesis is rejected. Similarly, [19] found similar results. These results demonstrate that the variables have cross-sectional independence. It is for this reason that the CIPS and the CADF panel unit root test was employed.

Table 2. Results from cross-sectional reliance test

	lnGDP	lnSD	lnLD	lnINV	lnTR	INF
CD test	17.793	4.264	8.459	0.446	1.845	1.924
P-value	0.000	0.000	0.000	0.656	0.065	0.054

Under the null hypothesis of cross-section independence, $CD \sim N(0, 1)$. P-values close to zero indicate data are correlated across panel groups.

Table 3 below presents the results of the correlation analysis. It is evident that, most of the variables have low bivariate correlations. The table presents the correlation investment and trade as the highest and also shows the correlation between GDP and long term debt as the lowest.

Table 3. Summary of correlation analysis

	lnGDP	lnSD	lnLD	lnINV	lnTR	INF
lnGDP	1.000					
lnSD	0.100	1.000				
lnLD	-0.489	-0.143	1.000			
lnINV	0.260	-0.103	-0.149	1.000		
lnTR	0.180	-0.386	-0.056	0.368	1.000	
INF	0.008	0.039	0.215	-0.022	0.146	1.000

4.3.2. Panel Unit Root Test

The ARDL methodology cannot be used when any of the variables being used have an order of integration 2, it is therefore important to perform panel unit root tests on all the regressors. The panel unit root test is used to detect the stationarity of panel data. When variables being used for analysis are non-stationary, it can result in misleading regression results. This study opted to use the CIPS and CADF panel unit root test instead of the traditional unit root tests like IPS and LLC due to the fact that these traditional unit root tests are not the most suitable for data that contains cross-sectional reliance as is the case. Hence the CIPS and CADF will present more accurate results even with the presence of cross-sectional reliance, this was supported by [20]. The results from the panel unit root tests are therefore presented in Table 4. The results give evidence to the fact that the variables being tested are not stationary at their levels except inflation, the rest of the variables become stationary at their first difference. This means that inflation is integrated at order (I(0)) while GDP, SD, LD, INV and TR are all integrated at the same order (I(1)). Due to the results from Table 4 pointing out that the variables are non-stationary at their levels with the exception of inflation, the study implored the Pedroni panel cointegration test to find out if there is a long run correlation among the variables. Furthermore, since we can ascertain that all the variables are not integrated of order 2, it is fit to run the ARDL model.

Table 4. Results from panel unit root tests

Variable	CIPS		CADF	
	Level	Δ	Level	Δ
InGDP	-2.024	-3.317**	2.458	-3.1116***
InSD	-2.278	-4.486***	-1.889	-4.477 ***
InLD	-2.358	-3.627*	-2.100	-3.343 ***
InINV	-2.756	-4.053***	-2.280	-4.113 ***
InTR	-2.341	-4.217**	-1.693	-4.229***
INF	-4.565***		-4.339***	

*** represents statistical significance at 1%. The CIPS and the CADF are both based on the null hypothesis of cross reliance.

4.3.4. Panel Cointegration Test

This test seeks to examine the cointegration interrelation that is present between the investigated variables (gdp, sd, ld, inv, tr and inflation). The outcome of the Pedroni cointegration test is displayed in Table 5. There are seven different statistics subdivided into the panel statistic and the group statistic. With the consideration of panel t-statistic, panel ADF, group rho and group t-statistic, we reject the null hypothesis at the panel and group statistics because in absolute terms these figures are greater than 2. We can therefore conclude that the variables being investigated have cointegration relationship.

Table 5. Results from Pedroni cointegration test

Test	t-Statistic
Panel v-statistic	-1.393
Panel rho- statistic	1.693
Panel t-statistic	-2.198
Panel ADF-statistic	2.832
Group rho-statistic	2.874
Group t-statistic	-2.405
Group ADF-statistic	4.936

All test statistics are distributed N (0, 1), under a null of no cointegration.

4.3.5. Empirical Analysis of the Panel ARDL Regression Results

Table 6 presents the results from the ARDL model. According to [16], there are three methods that are suggested for the estimation of dynamic heterogeneous panel for both T and N. The first method is the dynamic fixed effect (DFE). This method estimates the pooling of time series information for every nation and the varying across nations is only allowed at the interception of coefficients. Therefore, the speed of alteration of the short run coefficients are considered as the same across the countries. The downside to this technique is apparent as when a situation where the slope coefficients are not identical, this method will result in inconsistent and misleading results. The DFE estimation is furthermore prone to a simultaneous equation bias due to the endogeneity between the error term and the lagged dependent variable. [21]

Table 6. Panel ARDL estimation results

Variable	Pooled Mean Group (PMG)	Mean Group (MG)	Dynamic Fixed Effect (DFE)
Error Correction term	-1.87 (0.000)***	-2.80 (0.005)**	-4.57 (0.000)***
Short-run			
Short-term debt	-0.75 (0.453)	-1.58 (0.114)	-0.42 (0.672)
Long-term debt	-0.69 (0.493)	-0.81 (0.419)	-0.80 (0.422)
Investment	0.17 (0.862)	-0.48 (0.632)	-0.74 (0.460)
Trade	-0.13 (0.893)	-0.55 (0.582)	-1.25 (0.213)
Inflation	0.62 (0.534)	0.84 (0.398)	0.25 (0.799)
Long-run			
Short-term debt	-4.89 (0.000)***	-1.47 (0.141)	0.84 (0.399)
Long-term debt	-7.31 (0.000)***	-2.00 (0.045)**	-3.35 (0.001)***
Investment	4.22 (0.000)***	1.66 (0.098)*	2.58 (0.010)***
Trade	-4.33 (0.000)***	-0.77 (0.442)	0.12 (0.906)
Inflation	-0.33 (0.742)	-1.69 (0.092)*	0.36 (0.718)
Constant	1.90 (0.057)*	2.33 (0.020)**	4.14 (0.000)***

The numbers in () is the p-value. The second method of estimation is the mean group (MG). This approach estimates the model for each country individually what's more, a straightforward unweighted number juggling normal of the coefficients will be determined as the last (MG) estimates. Thus solving the problem of bias presented due to heterogeneous slopes in dynamic panels. The MG likewise takes into consideration all catch and incline coefficients to differ and be heterogeneous over the long haul and short-run too.

The third approach is known as the pooled mean group (PMG). This approach combines averaging and pooling. Just like the MG estimator, the PMG estimator allows for the short run coefficients and error variances to vary across countries, while restricting the long run coefficients to be identical across countries just like the DFE. The fact that the PMG allows for short run elements to contrast

across nations gives it an advantage over DFE. Additionally, because the PMG combines both pooling and averaging, it is believed to have the more accurate results. However, while choosing the most reasonable estimator, the Hausman test is used. The Hausman is able to show regardless of whether there is a critical contrast between the MG and PMG. If the null hypothesis is not rejected then we conclude that there is no huge distinction between the two set of estimates and select PMG estimates as they are efficient estimates. However, if the null hypothesis is rejected then we can say that there is a critical distinction between the two estimators. A suggested solution for this scenario is to use the average of these estimators.

We utilize the Hausman test to test the null hypothesis of no distinction between the MG and PMG estimators. The estimation of the test statistic is 24.52 with a p-estimation of 0.0002, demonstrating that we can't accept hypothesis that the MG and PMG gauges are the equivalent. This however, proves that the PMG is most suitable estimator to carry out this research.

The results from Table 6 show that short term debt has a negative impact on GDP in the short term across all estimators while a negative relationship is observed with the PMG and MG estimators. DFE shows a positive relationship between short term debt and GDP in the long run. These results are not significant. These outcomes affirm the findings of [17]. In his investigation, he found that countries with higher levels of debt have a negative aftermath on economic development in the short run. He further added that an increase of 10% in the government borrowing leads to an immediate negative effect on growth of 0.72% across nations with significant levels of debt while there was a difference of 0.46% with countries that have low levels of debt.

Long term debt shows a negative correlation with economic growth in the short term across all estimators. This is expected as Southern African countries are highly indebted countries. It is therefore likely that their economies are hindered by debt overhang. In the short term, debt is used to service existing debt leaving minimal for investment that would boost economic growth. However, a negative significant relationship between debt and economic growth in the long run between all the estimators alludes to the funds acquired from external sources not being used for economic activities such as investment, capital formulation and technology which will lead to an uplift of the economy. There are several reasons why this may be the case. Firstly, a lack of a strong private sector in the region points to the government solely trying to boost the economic growth in the region. As a result, some of the foreign funds obtained will be used to service the existing debt, leaving little to adequately invest in the economy. Due to the abysmal lack of proper funds to sufficiently boost the economy, the region experiences a sluggish economic growth if at all there is one. These results provide support to the findings by [22] and [23]. African economies in general are not known for efficient utilization of resources. It can therefore be explained that long term debt can result to a negative economic growth as is the case with all the estimator due to a lack of proper utilization of these external funds.

The negative repercussions of investment on GDP in the short run was by the MG and DFE were anticipated due to the presence of debt overhang. Resources are not fully maximized into income generating projects due to the existence of previous debt that needs to be settled. However, all three estimators show a positive significant effect of external debt on investment thus resulting in economic growth. When an economy utilizes its resources wisely, that is; making good policies that lead to both public and private investment, there will be an immediate increase in economic growth. The positive impact of investment on economic growth is supported by [9] and [24].

The negative impact of trade on GDP in both the short run and long run shows how vital trade liberalization is in emerging economies. Trade is a driving force for economic growth as it enhances efficiency, increases innovation and boost employment. Southern Africa is rich with raw materials, however, they do not have the machinery and skills to fully capitalize. Therefore, after these raw materials are extracted, they are exported to countries with the expertise to complete the production of goods, and the same countries that sold the raw materials buy the finished products. This creates a budget deficit as these countries import more than they export. This confirms existing literature of a negative correlation between trade and GDP. [25] highlights the negative link between trade and economic growth in emerging economies finding similar results.

The outcomes from Table 6 show a positive connection among inflation and economic growth in the short run. The long run results vary as the DFE estimator shows a positive correlation while the MG and PMG show a negative relationship. It imperative to take note over the long haul, the t-statistic are not definite positive numbers. This proves the intricate relationship that inflation has on economic growth. High levels of inflation are huge blockage to economic development even more so for emerging economies. The case of Zimbabwe coincides with this fact. These results are however contrary to the results from [26] and [27].

5. Conclusion

This paper inspected the effect of external debt on the economic growth (GDP) of selected countries in Southern Africa using a macroeconomic framework linking investment trade and inflation. Imploring a panel ARDL approach the empirical results in this study identify the short- and long-run consequences of debt on growth. Overall the results substantiate the findings of empirical literature that government debt hinders economic growth in the short run as well as the long run.

A number of policy implications arise from the empirical findings for policymakers in the SADC region. Firstly, the government should not rely on external debt as a means to enhance economic growth. Through the use of aggressive policies, these lower middle income countries can benefit from good policies to promote and improve their respective economies.

Policymakers need to encourage private investment as it is the driving force for job and income creation while

playing a major role in infrastructure development. Additionally, private investment if utilized correctly will be able to provide additional funds needed to boost economic growth thus resulting in a lesser need to acquire external funds.

If at all the government sees it fit to procure external funds, it is ideal to seek external sources with low interest rates. Recently, Zambia failed to service its loan obtained from the IMF resulting in the privatization of prized government assets. This is down to the failure to completely comprehend the full extent of the conditions of the loan. Mozambique hid its government debt of \$1.4billion. This prompted the IMF to halt the second installment of a previously authorized loan. However, had it gone through, it would have been a hindrance to economic growth as it would have been used to pay part of the existing debt thus creating a potential debt overhang in the country.

The government ought to increase its specialized knowledge on debt restructuring and prepare projects to help facilitate infrastructure and institutional change, including improving insights to accommodate with universal information by studying more economic models and how advanced economies apply them, and additionally try to improve their practices in financial straightforwardness and banking supervision. Thorough coordinated multi-year specialized help programs, co-financed with different benefactors, ought to be actualized in all the nations in Southern Africa. Moreover, the preparation endeavors for African authorities, concentrating on how to combat external debt and improve economic growth should be of utmost importance.

There were several drawbacks present during the course of this study. Foremost, vast amounts of African data were incomplete which resulted in a limited use of nine countries. More variables were implored but they had an order of integration higher than 1 which isn't suitable for the ARDL model. Further research is surely expected to completely comprehend the effect of government debt on economic development in Southern Africa. Right off the bat, one can presumably research how unpaid debt has influenced the interest rates and financing costs in Southern Africa. Another examination can be completed to discover the connection between GDP development and debt to-GDP in light of the fact that numerous determinants of monetary development, for example, investment are relying on loan fees and the imports/exports are reliant on the exchange rate.

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