An Examination of the Effects of External Debt on the Economic Growth of Zimbabwe

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Abstract:

The paper undertook an examination of the effects of external debt on the economic growth of Zimbabwe. The study proposed that economic growth in Zimbabwe has been negatively affected by external growth. It is periodically delimited to the period 2009-2020. The study was conducted based on a positivist philosophical framework. Secondary data was utilized and this data was obtained from publicly available sources including International Monetary Fund, World Bank, Ministry of Finance and Economic Development and Zimbabwe Statistical Agency reports. Ordinary Least of Squares regression analysis was the analysis method opted for given its superiority in the context of the study. Various tests were also undertaken prior too regression analysis to ensure that assumptions were not violated. Findings indicated that external debt significantly and negatively impact economic growth in Zimbabwe. Similarly, inflation negatively affects economic growth. Other variables like labour force and investment positively impact economic growth. As a recommendation it is submitted that the decision relating to whether to borrow ought to be taken carefully while external borrowing ought to be avoided were possible. Should policy makers decided to borrow internally, care should be taken not to crowd out the private sector. Foreign direct investment should be encouraged as it would help plug capital gaps thereby eliminating or reducing the need to borrow

Key Words: External debt; Economic growth; Investment.

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I. Introduction

The Zimbabwean economy has been in dire straits for a while with key sectors including the agriculture sector, financial sector and manufacturing sector operating at suboptimal levels. Lack of capital, unfriendly operating environment and droughts have contributed to this state of affairs. Revenue collection by the government has also take a hit in the wake for job losses that have plagued the Zimbabwean economy. Economic sector requires technology and capital to function better and effectively contribute to economic growth. The government is not in a position to finance these needs because it is burdened by levels of debt which are very high and technically it is insolvent. The country has high levels of external debt, which makes it crucial to examine the effect this debt on the economic growth. This will allow for an informed evaluation of alternative sources of funding to be done. Pursuant to this, this paper is going to focus on the effects external debt had on the growth of the Zimbabwean economy from 2009 to 2020.

II. Background

A number of scholars put forth different opinions with regards to the fact that external debt promotes economic growth and development. The same is however a very important aspect at both academic and policy level. The main issue that has proven to be a bone of contention has been the implications of external borrowing on economic growth (Atique & Malik, 2012; Musebu, 2012). This is important given that external borrowing has been sought after by nations looking to grow their economies. Two main perspectives have dominated the debate with the Neoclassical and Endogenous growth models seeking to put forward the argument that external debt positively influences economic growth (Beretta, 2012). The argument is predicated on the notion relating to the debt as a source for financing capital formation which would in turn through its impact of investment boost economic growth (Ezeabasili, Isu & Mojekwu, 2011). On the other hand, authors like Kasidi and Said (2013) stated that foreign debt has been the source of poverty in indebted third world countries.

Zimbabwe is one country that has relied on external debt. The country is heavily indebted with publicly guaranteed and public debt amounting to a whooping US\$8.4 billion as at December 2018 (RBZ, 2019). The amount of foreign debt was US\$6.7 billion which amounts to 4.7% of the country's GDP. Servicing

the external debt has proven difficult for the country resulting arrears of over 82% of the foreign debt. The accumulated external debt is not sustainable because it is almost 200% in terms of debt to export ratio. The country's credit rating has been negatively impacted by the debt overhang stalling important national projects that require funding including efforts to devolve governance. This has been mainly due to withdrawal or suspension of borrowing rights hitherto enjoyed with various creditors including multilateral institutions like IMF and World Bank. The country needs capital as well as funding in general to finance growth projects including infrastructural development projects in the face of depressed revenue stream and low domestic savings. Efforts have been made recently by the government to clear certain arrears with a view to open up space for further external borrowing indicating that country is looking at the external debt as a solution to growth financing challenges.

If properly put to use, external debt can help indebted countries. Tchereni, Sekhampu and Ndovi (2013) argue that external debt is important in the bid to break bottlenecks within an economy which facilitates full utilisation of resources in pursuit of growth. Opponents of external debt have however argued that debt constrains investment through crowding out effect and disincentive effects. Panth et al (2012) indicate that external debt leads to crowding out of public investment through debt services thereby negatively affecting growth and productivity. The government would be compelled to increase its borrowing thereby deprive private domestic investor of funding (Reinhart et al., 2012). A lot of extant literature globally focuses on the effect of external debt on economic growth. However, most of the empirical literature has focused on other contexts than that of the current study. Conversely, few research studies that were carried out by Matandare and Tito (2018) revealed that there is a negative relationship that exists between external debt and economic growth. All the foregoing coupled with a dearth of empirical evidence in the Zimbabwean context do warrant a contextual analysis of this aspect. The current study incorporates a slightly different set of control variables over the period 2009 to 2020.

III. Conceptual Framework

1. External Debt

A public debt refers to a debt taken by the government. A public debt can be categorised into two and these categories are domestic and external debt. The paper focuses main on external debt which is also known as foreign debt. Abdelhadi (2013) defines the same as a portion of national debt which the government owes to creditors who are domiciled outside the country's borders. Arowolo (2010) avers that country go into debt owing to inability to come up with sufficient savings to fund productive activities domestically. Borrowing from foreign or external sources is necessary and noble in the bid to accelerate economic growth, as long as it is utilised in a manner that enhances the country's productive capacity, promotes development and economic growth. A brief explanation of most important terms that relate to external debt as considered in this paper is going to be given by the section below.

- i. **Debt crisis** relates to a situation that arises when an indebted country has accumulated debt that is beyond its capacity to manage the same effectively. This may lead to various challenges within the political economy at home (Adejuwon et al., 2010). Mimiko (1997) indicates that the same is a situation under which a country is so indebted that it is not I a position to effectively service its debt acquired from external sources.
- ii. Debt servicing refers to the contractually agreed fixed amount payable on domestic real income as well as savings (Todaro & Smith, 2012). Deb services charged increase with the rise in the size of debt. The same is normally undertaken using export earnings, further external borrowing or reduced imports. A decline in exports in an indebted country may pose challenges in the context of debt service (Ibid)
- iii. Debt Sustainability can be understood to be the ability of a certain country to maintain or sustain a certain consistent debt-GDP ratio over a given amount of time (Ntshakala, 2015). Challenges relating to sustainability are faced by an indebted country when the ration becomes excessive. Kasidi and Said (2013) postulate that debt sustainability is largely dependent on various factor including current debt stock and the related debt service, the debt's financing mix, prospective deficits path and the evolution of the country's payment capacity with regards to foreign currency value of its exports, government revenues and Gross Domestic Product.

2. External Sources of Finance

External debt falls into main categories and these are multilateral and bilateral flows. ZIMCODD (2001) postulates that bilateral debts relate to loans that a government accesses from fellow governments, agencies and central banks. Agencies in this regard include public autonomous bodies and credit agencies (including both Paris- and non-Paris-provided loans). On the other hand, multilateral debt is the kind of debt that

a country obtains from different institutions and it comes in different forms. Some the institution where country can borrow from include the World Bank, African Bank, International Monetary Fund and to mention but a few. Furthermore, the loans can be subdivided into concessional and non-concessional loans. The former are loans that bear interest rates that are lower than the average interest rates on the market and have also a longer than normal repayment periods. On the other hand, non-concessional loans have shorter repayment periods, bear high interest rates and normally place a servicing burden on borrowers (Mbar, 2016).

2.2 Economic Growth

Economic growth has attracted great interest from academics and practitioners alike. Economic growth can be understood to be as an increase in a nation's output of real good and services over a certain period of time (Ajayi, 2014). A slightly different definition is provided by Klein (2009) which argued that the growth of the economy is understood to be the increase or decrease in the long run aggregate output driven by increased saving and population. Todaro and Smith (2012) expand this view and indicate that economic growth relates to the sustained increase (quantitative) in the per capital income of a country which is coupled with an increase in trade, capital, consumption level and labour force. Suffice to say the view holds economic growth to be an increase in real GDP over a certain period which is normally a single fiscal year. As Ntshakala (2015) notes, the main driver of economic growth is normally improved productivity. Different theories have been put forward in a bid to proffer explanations for the concept of economic growth which happens to be the current paper's dependent variables. Until recently, many different theories have been put forward with regards to economic growth and these have varied in terms of fundamentals, assumptions underpinning them, categories, concept utilised, theories suggested as well as explanation of the development process (Mookherjee & Ray, 2001).

In this paper however, economic growth is analysed based on Swan (1956) and Solow (1956)'s neoclassical growth model which they independently. This neoclassical theory on growth (for instance Solow growth model) postulates that economic growth ought to be constant in the long run and that it has to be equal to population and labour force growth (Eichengreen, 1988). The model is underpinned by the assumption that there are diminishing marginal returns to capital availed and there are also constant returns to a given technology. In the structure concerned, where per capita growth is zero given that all variables grow at a similar rate as the countries' populations, several countries are likely to converge at the same steady-state level (Korsi, 2015). However, one major challenge is the acquisition and application of the golden rule meaning applied by nations to saving rate which maximises the per capita recorded across the future generations' consumption. This may imply that the application of absolute convergence hypothesis referred to above, various countries will converge at the steady state level. Abdelhadi (2013) argues that through the facilitation of this convergence, the neoclassical assumption highlights that nations that are rich enjoy higher levels of per capita worker which implies lower product per unit of labour. Resultantly, there is movement of capital from these rich countries to poor countries. His will likely results in faster economic growth for the poor countries.

The model is a good fit in the context of the current paper s it explains economic growth as well as the factors that influence the same including the external debt which is the independent variable. Todaro and Smith (2012) cite various strength of the model and these include that fact that the model is crafted in a unified system that puts together marginal and classical methodological achievements, the model in its analysis and evaluation of economic phenomena used the quantitative and individuals subject processes permitting wide use of mathematical apparatus. The following is a diagram illustrating the concept behind this study.

Independent Variables

Dependent Variables



Figure 1.1: Conceptual framework

The study conceptualises external debt as being likely to influence economic growth. Capital Stock, Labour force, Inflation rate, Trade openness and Investment are included as control variables.

IV. Theoretical Framework

The study is hinged on the Debt Overhang Theory which explains a scenario in which the debt stock is in excess of a country's capacity to repay as well as how this may negatively affect economic growth. Classens et al. (1996) assert that some of the returns that accrue to the municipal economy in this case are taxed away for the benefit of external creditors which may discourage investment by both local and foreign investors thereby dampening economic growth. Todaro and Smith (2012) further aver that accumulated debt stock places downward pressure on the economy's performance by way of the effect of a debt overhang. Therefore, tax disincentive and macroeconomic instability may ensue. The former relates to the discouragement of potential investors from investing in the economy owing to the assumption that there are likely high taxes on future income earned on investment.

The hypothesis hold that accumulated debt takes the form and effect of the tax on the future output which impedes productive investment plans by foreign investors as well as adjustment efforts initiated on the part of the government (Matandare & Tito, 2018). Suffice to say that in a sense, external debt weighs heavy on the economy where the debt situation is that improvements in economic performance of the country in debt culminate in higher repayments for the debt which mans lender enjoy a significant part of the enhanced exports and production. The ultimate outcomes in this case will be the declining GDP growth and the subdued direct foreign investment (Abdullahi, 2016).

Aundu (2004) emphasises the relevance of the theory or hypothesis in the Nigerian context, reporting that he debt service burden has seriously hinder the rapid economic development sought in Nigeria thereby worsening the social problems in the country. Lack of adequate funding for key projects and institutions has resulted from the debt situation thereby negatively affecting service delivery to citizens. The cuts in social and economic infrastructure will constrain growth and investment in the private sector owing to lost externalities. Total investment will as a result be reduced since public investment contributes a he portion of the aggregate investment in an economy. Therefore, this theory is important in analysing the external debt's effect on the growth of the economy of Zimbabwe.

V. Literature Review

The literature around external debt and its effects on economic growth reveals that this area is tropical and highly debatable. The same has generated great interest in the new world economic order with many policy makers, researchers and economist more so in developing economies discussing and debating the same (Egbetunde, 2012). Its importance has been based on the need to know if external debt will positively contribute to economic growth. Sulaiman and Azeez (2012) indicates that the need to ensure equity, stability as well as smoothing have been the main reasons for the choice of external debt over taxation and money printing in various economies. This is predicated on the endeavour by certain government to equitably utilise investment opportunities which would be impossible if current generations were to be taxed to finance projects meant to benefit future generations. Further, with debt financing comes the benefit of effectively meeting immediate spending needs that may be urgent (Ndikumana & Boyce, 2012). However, it is a futility to address this aspect without acknowledging two of the most notable theories in this regard namely the debt overhang and crowding out effect

The former explains a scenario where the debt stock of a country surpasses a country's ability to services the debts and how the same impacts on the economy. Senadza et al. (2018) argues that existing creditors will tax away most of the domestic returns thereby discouraging foreign and domestic investment (Gohar & Butt, 2012). A dampened economic growth will be the result. On the other side, the crowding out hypothesis also explains the possible impact external debt may have on economic growth. This can be related to the situation where increased government spending and deficit financing takes up financial resources thereby deprive personal consumption and investment (Umaru, Hamidu & Musa, 2013; Mbah, Agu & Umunna, 2016). This effect emanates from failure by an indebted country to obtain external loans thereby turning to domestic financing. Domestic cost of finance may increase as a result thereby discouraging borrowing for investment. Accumulated debt stock has a diminishing effect on an economy's performance mostly due to debt overhang (tax disincentive and macroeconomic instability) (Todaro and Smith, 2012). The assumption that there may be taxation on future incomes to services debts discourages investors. Thus accumulated debt stock acts as a tax on yet to be realised output thereby impeding productive investment (Matandare & Tito, 2018). Thus improvements in productivity partly benefits lenders at the expense of the actual economic agents thereby dwindling FDI and reducing economic growth. Empirical research findings have however produced varying results.

Calderon and Fuentes (2013) held that economic growth in Latin America had been negatively affected by external debt. Their study focuses on the periods 1970 to 2010 and utilised time series data. Similarly, Tchereni et al (2013) in a study carried out in Malawi focusing on the period from 1975 to 2003 concluded that economic growth had been affected negatively by external debt albeit statistically insignificant. In their study they focused on the period from 1975 to 2003. Similar conclusions regarding the direction of the relationship between the two in Pakistan (1972-2010) by Rais and Anwar. Munzara (2013) focusing on a period from 1980 to 2013 also undertook a research in Zimbabwe on the effects of external debt on economic growth. The explanatory variables utilised were as follows capital investment, labour force and trade openness. From the findings it was revealed that economic growth was negatively affected by external debt and trade openness but positively by investment and labour. Similar studies in the Zimbabwean context by Mavhinga (2018) and Matandare and Tito (2018) produced finding pointing out that external debt affects economic growth negatively.

However, in contrast, researches that were carried out by Sulaiman and Azeez (2011) in Nigeria revealed that external debt has a positive impact on economic growth. The study employed both ordinary least of squares and Johaneson's cointegration methods of analysis. Similar findings in the same context were obtained by Erhieyovwe and Onovwoakpoma (2013) and Ogunbiyi and Okunlola (2015) who determined a long- run cointegrating relationship between these two variables which was there. The reviewed literature shows that various studies have been undertaken before globally. Most of the studies have found a negative impact to results from external debt in terms of growth (Ndubuisi, 2017; Matthew & Mordecai, 2016; Chalk & Tanzi, 2014). Few others obtained contrasting results. The debate on the debt-growth nexus remain unresolved due to mixed results obtained in studies. More recent studies including Paniza and Presbitero (2014) indicate that their findings are inconclusive. The current study adopts the use of OLS albeit with a wide array of control variables. The use of a shorter period in terms of data is due to the fundamental changes that the Zimbabwean economy has gone through punctuated by the dollarization of the economy.

VI. Methodology

This study is premised on a positivist research paradigm and adopts an explanatory research design. The explanatory nature of the paper as well as the qualitative nature of the data used informed the decision to go with a positivist based explanatory research design. Further, the study made use of quantitative research methods and these were permissible under the paradigm opted for. To examine the impacts of external debt on economic growth is the main the agenda of this research and it required that quantitative data be utilised in addressing it. Thus the choice of research methods was based on the research's main aim as well as the data utilised.

1. Data

The study relied on secondary data only which is the data collected for a different purpose from the one for which it is being utilised. Thus the study utilised data that was already available. The same however required manipulation in order to make it fit for purpose (Smith et al., 2011). All relevant data was collected to various sources. The study considered data from International Monetary fund, Wold Bank, ZIMSTAT, Ministry of Finance and Economic Development which was closely examined to allow the researcher to extract all relevant data. The main consideration in deciding on the sources of data was the significance of reliable and publicly available data. Secondary data was central to the achievement of the study's main aim. Further, the same proved relatively less costly to gather given that it was readily available (Andrews et al., 2012). The researcher collected data relating to GDP, External debt, Inflation, Trade, FDI, Labour force, savings, capital stock and other relevant indicators.

2. Data Analysis and Presentation

This relates to work done on data collected including breaking it down, summarising as well as manipulating it using various tool in a bid to give it meaning with regards to the goals of the study (Bogdan & Bilkin, 2003). A statistical package for Social science (SPSS)version 22 was used in this study. This is a long-established software in this regard and has seen wide use in research (Bunescu, 2014). In determining the impact of external debt on economic growth an Ordinary Least of Squares analysis was utilised. Multiple Linear Regression was also utilised in the current study pursuant to the stated aim of the study. Thus the study made use of both descriptive statistical and inferential statistical analysis. The analytic model utilised as well as the variables of interest are shown and discussed in the section below.

3. Econometric Model Specification

As informed by economic theory, GP growth (economic growth) was modelled as a function of external debt, capital stock, trade openness, investment, inflation and labour force expressed as:

RGDPg= α + β 1ED+B2CS+B3LF+B4TO+B5INF+B6INV+ μ

Where; RGDPg= GDP growth; ED = External debt; CS = Capital stock; LF = Labour force; INF = Inflation Rate; TO = Trade openness; INV = Investment

 α , β 1, β 2, β 3, β 4, β 5, B6 are coefficients.

Spiliot and Vamvoukas (2015) states that, given its impacts on productivity of both capital and labour, the debt burden may be considered debatable in the production function. This can be said for the inclusion of exports in the production function. This is predicated on the notion that the need to service external debt will inform how capital and labour are applied in the production function. Thus if the benefits of increased productivity accrue to creditors and not domestic production agents, there may be little motivation to enhance productivity of the two factors (Jilenga et al., 2016; Dash, 2016). The study experimented with both logarithmic and linear specification and the latter was settled for as it offered better explanatory power and general significance. Consistence, minimum variance, low error sum of square and sufficiency are the other reasons for this decisions.

4. Operationalization of Variables

In this study, economic growth is proxied by GDP growth rate while on the other side, external debt is taken to be the total of borrowings from outside by a country with future servicing obligations. Ramza & Ahmad (2014) external debt is expected to negatively impact on economic growth. Capital stock is proxied by gross fixed capital formation. There is an expectation that Capital stock should have a positive effect on economic growth. Labour force is held to be employed labour which is an aggregate all employees in various sectors. Labour force is expected to positively influence economic growth (Akram, 2011; Safadari & Mehrizi, 2011).Inflation is expected to have a bad impact on economic growth (Umaru et al., 2013). Inflation increases the cost of capital thereby reducing investment and by extension economic growth. Trade openness is obtained by taking ration of the exports plus imports to GDP (Babu, Kiprop, Kalio & Gisore, 2015). There is an expectation that the variable must have a positive effect on economic growth. Further, according to the Solow growth model, investment has a direct and indirect impact on economic growth. (Ejigayehu, 2013). It can be reasonably expected that investment positively affects economic growth.

5. Pre Estimation Procedures

The assumption is that the parameter is linear given that the model applies linear ordinary least of square (OLS) and to predict both direction and association between certain variables is the main objective of the model (Frost, 2013; Baltar & Brunet, 2012). Therefore, so as to maintain the robustness and validity of the results of a study, this basic assumption ought to be satisfied. When these assumptions are fully satisfied, the results and preceding tests are taken to be valid (Dougherty, 2017; Greene, 2013; Wooldridge, 2012). Conversely, where the assumptions are violated, certain data maybe left out of the model. Tests for normality, multicollinearity, autocorrelation and heteroscedasticity in order to identify any misspecification of data so as to ensure research quality are done before applying the model for testing significance of slopes as well analysing the regressed results.

VII. Results

The study sought to determine the impact of external debt on economic growth in the Zimbabwe context. This was necessary given the country and circumstantial differences noted in past studies. Various tests were undertaken with respects to research data. These were done prior to the actual data analysis.

1. Data diagnostic tests

As indicated above, data was subjected to different diagnostic tests. VIF test was undertaken to determine if any of the independent variables had similarities which would have resulted in strong correlations. A value between 1 and 10 show the absence of Multicollinearity. There were no multicollinearities a shown by VIF values ranging between 1.927 and 3.157 (see. Appendix I). The related assumption is thus satisfied. Further, normality test results show that residuals followed a normal distribution as shown by the P-Plot (see. Appendix II) which shows residuals conforming to the normality diagonal line. The normality requirement is thus satisfied in the regression analysis. Homoscedasticity was also tested to determine whether residuals were equally distributed and not bunched together at certain values. Te scatter plot in Appendix III shows that values were spread out randomly thereby dismissing the heteroscedasticity possibility. Data used in the analysis was thus homoscedastic.

2. Statistics

Statistics for the study variables are shown in Appendix VI. Each of the variables has a total of 12 observations consistent with the period considered. The observed means for all variables except economic growth and investment were relatively high.

3. Correlation Analysis

In order to determine ht relationship between variables, correlation analysis was undertaken. The same also served to detect any cases of collinearity as indicated by coefficients above 0.8. Findings are shown below in Table 4.1

Table 4.1 Correlation analysis								
	GDP Growth	External debt	Trade Openness	Capital Stock	Labour force	Investment	Inflation	
GDP Growth	1							
External debt	-0.408**	1						
Trade Openness	0.661**	-0.371**	1					
Capital Stock	0.734^{*}	-0.369*	0.765**	1				
Labour force	0.674^{**}	-0.278^{*}	-0.667**	0.732**	1			
Investment	0.546^{*}	0.342^{*}	0.431**	0.369*	0.417^{**}	1		
Inflation	-0.436**	0.268^{**}	-0.282**	-0.828*	-0.338*	-0.278*	1	

Source: Primary data (2021)

**Significant at 5% *Significant at 1%

Based on the findings in the table, negative correlations do exist in relationships between, on one side external debt and inflation and economic growth on the other side. However, economic growth has a positive relationship with the rest of the variables considered in the study. There is an expectation that as inflation increases, economic growth must decrease as well. With regards to external debt, its effect on disposable income may explain the observed result. No cases of collinearity are observed given the absence of any correlation coefficients above 0.8. To have a clear understanding and position of the relationship between these variables a Linear regression analysis was performed.

Table 4.2 Model Summary

					Change Stastics			
			Adjusted R	Std. Error of the				Durbin-
Model	R	R Square	Square	Estimate	R Square Change	F Change	df1	Watson
1	.919ª	.845	.659	4.94	.845	4.549	6	0.084
Source: Primary Data (2021)								

The results for R, R-Squared and adjusted R-square are represented in the table above. The adjusted R-square value shown is 0.659 which reveals that the independent variables have a high effect on the dependent variable. The coefficient of several determinations is 0.919 indicating that 91.9% variation in economic growth is accounted by included independent variables. The standard error of estimate is insignificant while the Durbin-Watson statistic was 0.084 indicating an absence of autocorrelations. Further, Table 0.084 shows the analysis of variance (ANOVA) results. This was important in assessing the model fitness in explaining the relationships between dependent and in-depth variables.

Table 4.3 Model	:ANOVA	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.352	6	.468	38.549	.016
	Residual	.019	5	.006		
	Total	2.371	11			

Source: Primary Data (2020)

An F-test was undertaken so as to determine the inference between group means variability and that of group observations. The observe F-statistic (38.549) was significant at 5% level as shown by a 0.016 p-value. The model is fit to demonstrate the relationship under consideration in the study.

Table 4.4 provides regression coefficients for each of the variables included in the study. T-values and p-values for each are also shown.

Table 4.4: Coefficients								
				Standardized				
Unstandardized coefficients				Coefficients				
Model		В	Std. Error	Beta	Т	Sig.		
1	(Constant)	4.797	.695		4.334	.022		
	External debt	577	.289	511	-1.998	.025		
	Trade Openness	.042	.286	.064	.147	.036		

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	Capital Stock	.801	.000	.677	2.534	.012
	Labour force	.752	.819	.532	1.083	.016
	Investment	.548	.792	.215	.691	.018
	Inflation	615	.013	261	-1.114	.046
~ n.	D ((2021)			-		•

Source: Primary Data (2021)

Based on the above findings, external debt's negative impact beta is (-0.577) effect on economic growth and the same is significant at is 5% level (p-value-0.013). External debt thus will dampen economic growth as it increases. Findings confirm those in the correlation analysis. Findings corroborate those by Todaro and Smith (2012) who also conclude that economic performance is diminished by external debt through debt overhang effect. Munzara (2013) in his analysis of the external debt- growth nexus in Zimbabwe found out that foreign debt have a negative effect on economic growth. Results in the current study are however contrary to those by Sulaiman and Azeez (2011) in Nigeria who found external debt to have positively impacted on the economy. Findings are supported by Erhieyovwe and Onovwoakpoma (2013), Emerenini & Nnanna (2015) and Ogunbiyi and Okunlola (2015) as their studies established a long co-integrating relationship that was there between the two variables. However, this may just serve to show contextual and country differences both of which have been addressed through carrying out a contextual study in Zimbabwe.

Findings above have had also revealed that other independent variables save for inflation does not affect economic growth negatively. On the other side finding regarding investment may be due to the fact that capital investment ensures that capital gaps are kept low thereby reducing the need to borrow and promoting growth (Jayaraman & Lau, 2019; DeLong & Summers, 2012). High levels of investment are likely to an economy become fully functional with little in terms of capitals gaps. The findings confirm the expectation on this particular aspect based on theory. Panth et al (2012) explains that the fall in investment resulting from the crowding out effect emanates from the demise of the economic growth. The same in turn sees a fall in capacity utilisation, employment and economic growth. Results of this research also showed the negative impacts trade openness imposed on economic growth. With regards to inflation, an unfavourable effect is on economic is shown and the same is significant at 5%. The effect of inflation on the cost of capital discourages investment thereby suppressing growth. Abdelhadi (2013) also found the same to hold true in a prior study.

VIII. Conclusion and Recommendations

In this study it has been concluded that external debt is negatively related to economic growth. Furthermore, it has been found out that the former has a negative effect on the latter. In this regard, there is an expectation that with the increase in external debt in Zimbabwe the economic growth of the same will shrink. By borrowing externally, the government dampens economic growth at home which can be a challenge in the context of the country and population's wellbeing. Findings corroborate assertions by Todaro and Smith (2012) who state that accumulated debt stock diminishes performance of the economy through debt overhang effect. Ndubuisi, 2017, Pattillo et al., 2011 put across that the well being of generations can be affected by the long term effects that are negative of which external debt has on economic growth. It is against this background that the study recommends that the decision relating to whether to borrow ought to be taken carefully while external borrowing ought to be avoided were possible. The decision framework for external borrowing should be made as comprehensive as possible given the possible implication on economic growth. Should policy makers decide to borrow internally, care should be taken not to crowd out the private sector. Foreign direct investment should be encouraged as it would help plug capital gaps thereby eliminating or reducing the need to borrow. Domestic investment will also serve the same purpose for the benefit of the economy.

References

- [1]. AfDB, (n.d).From stagnation to economic recovery. Retrieved 22 April 2021.http://www.afdb.org/fileadmin/uploads/afdb/Documents/GenericDocuments/3.% 20Zimbabwe% 20Report_Chapter% 201.pdf
- [2]. Akram, N. Impact of Public Debt on the economic growth of Pakistan. The Pakistan Development Review, (2011): 599-615.
 [3]. Andrews, L., Higgins, A., Andrews, M. W., & Lalor, J. G. (2012). Classic grounded theory to analyse secondary data: Reality and
- reflections. The Grounded Theory Review, 11(1), 12-26.
- [4]. Atique, R. and Malik, K. (2012). Impact of Domestic and External Debt on the Economic Growth of Pakistan. World Applied Sciences Journal, 20(1): 120-129.
- [5]. Babu, J. O., Kiprop, S., Kalio, A. M., and Gisore, M. Effect of domestic debt on economic growth in the east African community. American Journal of Research Communication, 3(9) (2015): 73-95.
- [6]. Baltar, F., & Brunet, I. (2012). Social research 2.0: Virtual snowball sampling method using facebook. Internet Research, 22(1), 57-74. doi: 10.1108/10662241211199960
- [7]. Beretta, E. (2012). The economics of external debt: a Damocles' Sword hanging over the Emergent and the Virtuous (Germany). Banks and Bank Systems, 7(2). Retrieved from https://ssl.lu.usi.ch/entityws/Allegati/pdf_pub6406.pdf
- Bunescu, L. (2014), The Impact of External Debt on Exchange Rate Variation in Romania, Economics and Sociology, Vol. 7, No 3, pp. 104-115. DOI: 10.14254/2071-789X.2014/7-3/8
- [9]. Calderón, C., and Fuentes, J. R. Government debt and economic growth. InterAmerican Development Bank 2013.

- [10]. Chalk, N.; Tanzi, V. Public debt and economic growth. Channels of the long-term impact. In The Behaviour of Fiscal Authorities: Stabilisation, Growth and Institutions; Buti, M.M., von Hagen, J., Martinez-Mongay, C., Eds.; Palgrave Macmillan UK: London, UK, 2014.
- [11]. Dash, M. (2016). A study of regional trends in external debt in developing economies. Investment Management and Financial Innovations, 13(3). http://dx.doi.org/10.21511/imfi.13(3).2016.02
- [12]. Daud, S.N.M. & Podivinsky, J.M. (2012). Revisiting the role of external debt in economic growth of developing countries. Journal of Business Economic and Management, 13(5), 968-993.
- [13]. DeLong, B.J.; Summers, L.H. Fiscal policy in a depressed economy. Brook. Pap. Econ. Act. 2012, 1, 233–297.
- [14]. Diamond, P.A. 2012. National debt in a neoclassical growth model. Am. Econ. Rev. 1965, 55, 1126 1150.
- [15]. Dougherty, C., 2017. Introduction to Econometrics. 3rd ed. New York: Oxford University Press.
- [16]. Egbetunde, T. (2012). Public Debt and Economic Growth in Nigeria: Evidence from Granger Causality. American Journal of Economics, Vol. 2, No. 6, pp. 101 - 106.
- [17]. Ejigayehu, D. A. (2013). The Effect of External Debt on Economic growth. Retrieved from http://www.divaportal.org/smash/get/diva2:664110/FULLTEXT01.pdf
- [18]. Emerenini, F. M., Nnanna, A. U. (2015). Debt Management and Economic Growth Empirical Evidence from Nigeria. International Journal of Innovative Research & Development, 4(1), 243-258.
- [19]. Ezeabasili, V.N., Isu, H.O. & Mojekwu, J.N. (2011). Nigeria's external debt and economic growth: an error correction approach. International Journal of Business and Management, 6(5), 156-170.
- [20]. Fosu, A. K. (2012). The external debt burden and economic growth in the 1980s: Evidence from Sub-Saharan Africa. Canadian Journal of Development Studies, Vol. 20, No.2.
- [21]. Frost, J. (2013, May 30). Regression Analysis: How Do I Interpret R-squared and Assess the Goodness-of-Fit? Retrieved from http://blog.minitab.com/blog/adventures-in-statistics/regression analysis-how-doi-interpret-r-squared-and-assess-the-goodness-of-fit
- [22]. Genc, M.C. and Tandogan, D. (2015). The impact of external debt on economic growth in Turkey: and ARDL bounds testing approach. Paradoks Economics, Sociology and Policy Journal, 11(1), 65-87.
- [23]. Gohar, M., and Butt, F. The Impact of External Debt Servicing on the growth of Low Income Countries, Sukkur Institute of Business Administration. In Proceedings of 2nd International Conference on Business Management (ISBN: 978-969-9368-06-6) (2012).
- [24]. Greene, W.H. 2013. Econometric Analysis. 6th ed. New Jersey: Pearson Prentice Hall.
- [25]. Inna Shkolnyk and Viktoriia Koilo (2018). The relationship between external debt and economic growth: empirical evidence from Ukraine and other emerging economies. Investment Management and Financial Innovations, 15(1), 387-400.doi:10.21511/imfi.15 (1).2018.32.
- [26]. Jayaraman, T.; Lau, E. Does external debt lead to economic growth in Pacific island countries? J. Policy Model. 2019, 31, 272–288.
 [27]. Jilenga, M. T., Xu, H., & GondjeDacka, I. M. (2016). The Impact of External Debt and Foreign Direct Investment on Economic
- Growth: Empirical Evidence from Tanzania. International Journal of Financial Research, 7(2), 154-162.
- [28]. Kasidi, F., and Said, M.A. (2013). Impact of External Debt on Economic Growth: A Case Study of Tanzania. Advances in Management & Applied Economics, 3(4), 59-82.
- [29]. Matandare, M. A. and Tito, T. 2018. Public Debt and Economic Growth Nexus in Zimbabwe Journal of Economics and Sustainable Development www.iiste.org ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) Vol.9, No.2, 2018 84. Faculty of Commerce, BA ISAGO University, Gaborone, Botswana
- [30]. Matthew, A.; Mordecai, B.D. The impact of public debt on economic development of Nigeria. Asian Res. J. Arts Soc. Sci. 2016, 1, 1–16.
- [31]. Mbah, S. A., Agu O. C. and Umunna G. Impact of External Debt on Economic Growth in Nigeria: An ARDL Bound Testing Approach. Journal of Economics and Sustainable Development. Vol.7, No.10 (2016).
- [32]. Ministry of Finance and Economic Development, (2013). The 2014 National Budget Statement. Ministry of Finance and Economic Development: Harare
- [33]. Muhammad Mustapha Abdullahi1, N. A. (2016). "Debt Overhang versus Crowding Out Effects: Understanding the Impact of External Debts on Capital Formation in Theory." International Journal of Economics and Financial Issue.
- [34]. Muhammad Ramzan Sheikh, M. N. (2015). "Is External Debt a Boon or Curse? Evidence from Pakistan." Journal of Managerial Sciences, X (1).
- [35]. Musebu S. (2012). Debt Overhang and Economic Growth in HIPC Countries: The Case of Southern African Development Community (SADC), International Journal of Economics and Finance, 4(10): 82-92, ISSN 1916-971X.
- [36]. Ndikumana, L. and J.K. Boyce. 2012. "Capital Flight from Sub-Saharan African Countries: Updated Estimates, 19870-2010". PERI Working Paper, October 2012. Available at: http://works.bepress.com/james_boyce/39.
- [37]. Ndubuisi, P. Analysis of the Impact of External Debt on Economic Growth in an Emerging Economy: Evidence from Nigeria. Afr. Res. Rev. 2017, 11, 156–173.
- [38]. Ntshakala, P. L. (2015). "Effects of Public Debt on Economic Growth in Swaziland." International Journal of Business and Commerce, 13.
- [39]. Panth, S., R. Blavy, G. Kwon, R. Romeu, L. McFarlane, W. Robinson & M. Morgan (2012), Jamaica: Selected Issues, International Monetary Fund, Country. Report No. 06/157, Washington, DC. Retrieved from: www.imf.org/external/pubs/ft/scr/2006/cr06157.pdf
- [40]. Pattillo, C.; Poirson, H.; Ricci, L.A. External debt and growth. Rev. Econ. Inst. 2011, 2, 1-48.
- [41]. Presbitero, A. F. Total public debt and growth in developing countries. The European Journal of Development Research, 24(4) (2012): 606-626.
- [42]. Rais, S. I., & Anwar, T. Public debt and economic growth in Pakistan: A time series analysis from 1972 to 2010. Academic research international, 2(1) (2012): 535.
- [43]. Ramza, M. & Ahmad, E. (2014). External debt growth nexus: Role of macroeconomic policies. Economic Modelling, 38, 204-210.
- [44]. Reinhart, C.M., Reinhart, V.R. and Rogoff, K.S. (2012), "Public Debt Overhangs: Advanced-Economy Episodes since 1800," Journal of Economic Perspectives, 26(3), 69–86.
- [45]. Safadari, M. and Mehrizi, M. A (2011). External debt and Economic growth in Iran. Journal of Economics and International Finance. Vol. 3.
- [46]. Senadza, Bernardin; Fiagbe, Agbemavor Korsi; Quartey, Peter (2018) : The effect of external debt on economic growth in Sub-Saharan Africa, International Journal of Business and Economic Sciences Applied Research (IJBESAR), ISSN 2408-0101, Eastern Macedonia and Thrace Institute of Technology, Kavala, Vol. 11, Iss. 1, pp. 61-69, http://dx.doi.org/10.25103/ijbesar.111.07.

- [47]. Smith, A. K., Ayanian, J. Z., Covinsky, K. E., Landon, B. E., McCarthy, E. P., Wee, C. C., & Steinman, M. A. (2011). Conducting high-value secondary dataset analysis: An introductory guide and resources. Journal of General Internal Medicine, 28(8), 920-929. doi:10.1007/s11606-010-1621-5.
- [48]. Spiliot, S. & Vamvoukas, G. (2015). The impact of government debt on economic growth: An empirical investigation of the Greek market. The Journal of Economic Asymmetries, 12, 34-40.
- [49]. Sulaiman, L., & Azeez, B. (2012). "Effect of External Debt on Economic Growth of Nigeria." Retrieved 22 04, 2021, from Journal of Economics and Sustainable Development - IISTE: https://iiste.org/Journals/index.php/JEDS/issue/vie w/364.
- [50]. Tchereni, B. H. M., Sekhampu, T. J., and Ndovi, R. F. The impact of foreign debt on economic growth in Malawi. African Development Review, 25(1) (2013): 85-90.
- [51]. Todaro, M. P. & Smith, S. C. (2011). Economic development. Boston: Pearson Addison Wesley.
- [52]. Umaru, A., Hamidu, A. A., and Musa, S. External Debt and Domestic Debt impact on the growth of the Nigerian Economy. International Journal of Educational Research, 1(2) (2013): 70-85.
- [53]. Wooldridge, J.M., 2012. Introductory Econometrics: A Models Approach. 4th ed. New York: South Western Publishers.
- [54]. World Bank (2013) Global Development Finance, World Bank, Washington DC, World Bank (2010) World Development Indicators, World Bank, Washington DC, USA.
- [55]. World Bank (n.d).World Development Indicators. [External debt stock]. Retrieved 21 April 2021.http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source =world-development-indicators#s_e

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