

**EFFECT OF EXTERNAL PUBLIC DEBT FINANCING ON THE
ECONOMIC GROWTH OF EAST AFRICAN COMMUNITY
COUNTRIES**

**BY
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DECLARATION

I, the undersigned, declare that this research project is my original work and has not been submitted to any other college, institution or university for academic credit.

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DEDICATION

To my husband Nicholas Mutisya Mutuku, my son Arthur Mulei Mutisya and to my Domestic manager Grace Atieno.

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ABBREVIATIONS AND ACRONYMS

CMA: Capital Market Authority

CPI: Consumer Price Index

EAC: East Africa Community

FDI: Foreign Direct Investment

GDP: Gross Domestic Product

GNP: Gross National Product

IMF: International Monetary Fund

KRA: Kenya Revenue Authority

NI: National Income

OECD: Organisation for Economic Co-operation and Development

ABSTRACT

Public debts play a crucial role in financing of deficit budget. However, too much debt may become unsustainable for the country since revenue will spend on repayment of the interest and the principal amount at the expense of encouraging investment and therefore economic growth. Too much external debts results into crowding out effect as it deters local and foreign investors from investing and this adversely harms the economy. The level of public debt across East Africa countries has generally been on a rise. The aim of the study was to determine the effect of external public debt financing on the economic growth of East African community countries. The study adopted a descriptive research design. The population of the study comprised of 6 members' states of EAC. The study relied on secondary data that was collected over a period from 2000 to 2017. The collected data was coded into SPSS and this analysis was done using descriptive and inferential statistics. Means and standard deviations formed part of the descriptive statistics while regression analysis was the inferential statistics. The study established that 65.9% change in economic growth of Kenya is explained by its external debt, ($p=0.000$), 55.6% change in economic growth of Uganda is explained by its external debts ($p= 0.000$), 76.1% change in economic growth of Tanzania is explained by the level of external debts ($p=000$), 83.1% change in economic growth of Rwanda is explained by its external debt level ($p= 0.000$) and that 59.2% change in economic growth of Burundi is explained by its external debt ($p= 0.000$). On overall, 64.5% change in economic growth in East Africa Community is explained by the external debts of the member states. The study concludes that external debt significantly influenced economic growth of Kenya as a country. External debts significantly influenced economic growth of Uganda, Tanzania, Rwanda and Burundi. In general, external debts had most influence on economic growth of Rwanda followed by Tanzania, Kenya, Burundi and lastly Uganda. On overall, a significant change in economic growth in East Africa Community is explained by the external debts of the member states. External debt significantly influenced economic growth of the EAC. The study recommends that the National treasuries of member states of EAC should carefully consider increasing the level of their external debts based on their ability to service and the overall capacity. Member countries of EAC should have clearly established threshold of a rise in level of external beyond which an alarm should be raised to signal danger. The member countries of EAC should borrow external debts for the purpose of economic growth. However, borrowing the debt with the aim of repaying another debt or for recurrent expenditure would not significantly influence economic growth of a country. The study recommends future studies to supplement secondary data with primary information. Future scholars should focus on countries across Africa as a whole apart from members of EAC in their studies.

CHAPTER ONE: INTRODUCTION

1.1 Back ground of the Study

A sustainable level of public debt is one of the predictors of economic growth. A rise in public debt on the other hand can become unsustainable and therefore slowing down economic growth. A rise in public debt slows down economic growth because a significant portion of revenue is spending on debt servicing instead of being spent on investment and therefore economic growth. However, when prudently borrowed, external debts can be used to finance projects like infrastructure and industries and this positively influence economic growth (Buchanan, 2016).

According to the Debt Over-Hang Theory, the estimated debt servicing is expected to be a growing function of the level of output of the country if the debt level will grow more than the ability to repay. The Debt overhang theory is of the views that a rise in external debt may become unbearable for the country resulting onto a slowdown in economic growth. In view of Keynesian Theory, public debt has no real burden and it does not significantly influence economic growth (Metwally & Tamaschke, 1994). The real burden of the debt occurs at the time of committing expenditure and this entails using up resources. In view of Ricardo's theory of public debts, the wasteful tendency of the public itself rather than the methods adopted for financing such expenditures formed the primary burden to the community (Roberts, 1942).

The level of public debts among East Africa Countries has been on a rise over the past decade. In a country like Kenya for instance, the country has borrowed more than Ksh200 billion, increasing the national debt to over Kshs4.5 trillion (National Treasury, 2018 & Capital Market Authority CMA, 2018). According to Regional Economic Outlook report (2016), International Monetary Finance IMF indicates that in sub-

Saharan countries, the ratio of public debt to GDP stood at 52.6 per cent in 2016 and is expected to increase to 56.2 per cent in 2017 while Tanzania's increased from 37.4 per cent to 38.3 per cent while in Uganda, it rose from 38.6 per cent to 39.9 per cent.

1.1.1 External Public Debt

A government can borrow either locally or externally. Internal borrowing is called internal debts while external borrowing is called external debts. Therefore, public debt is composed of external and internal borrowing used to finance a budget deficit. While internal debts are denominated in local currency, external debt is denominated in foreign currency and the recipient country repays the debt with an interest at a specified maturity date. According to IMF (2016), public debt is the entire stock of contractual obligations of the government. These obligations can either be internal or external at any given date. Prudent borrowing can result into positive growth of the economy as seen in capital accumulation and productivity.

External borrowing for productive investment results into macroeconomic stability besides providing capital inflow that positively influences domestic savings hence investment demand (Mogaka & Ochieng, 2018). A good example of external borrowing is issuance of sovereign bonds. According to statistics from the National Treasury (2018), Kenya raised Kshs. 202 billion (\$2 billion) in a new Eurobond issue. The bond was listed on London Stock Exchange (LSE). Internal sources of financing a national budget include tax revenue, issue of corporate bonds and treasury bills. Tax revenue is the most significant source of internal financing of national budget. In Kenya for example, the statistics from Kenya Revenue Authority KRA indicates that for the 2016/2017 financial year, there was collection of Kshs. 1.365 trillion in comparison to Kshs. Kshs. 1.210 trillion 2015/2016 financial year.

All debts, whether internal or external are classified as either productive or unproductive. Unproductive debts are also called dead weight debts. Productive debts are borrowed to increase asset stocks like factories, electricity and refineries. Unproductive or dead weight debts on the other hand are used to finance war and current expenditures. Therefore, it is important that debt financed investments should be well managed and productive in order to earn returns higher than cost of debt serving (Pianesell & Zaghini, 2014).

1.1.2 Economic Growth

An economy is subset of the world in physical form and it is made up of wealth, population and production flow (Daly, 2010). Economic growth is an increased capacity of the country to produce products in comparison to different periods over time. Economic growth is generally a rise in the level of production and consumption of products over a given period of time. Economic growth is commonly measured through Gross Domestic Product GDP or Gross National Product GNP (Waweru & Ochieng, 2017). Economic growth refers to the level of total outputs recorded in an economy over a given period of time which is normally one year (Haller, 2012). It summarizes the activities of country in creation of value over the period under review.

Economic growth is defined in terms of an increase in national income per capita. It is measured in terms of the changes recorded in Gross Domestic Product (GDP), Gross national Product (GNP), and National Income (NI) (Haller, 2012). It is perceived as the process which results to an increase in the sizes of national economies, macro-economic indicators (Agrawal & Khan, 2011). Economic growth encompasses increases in a country's level of per capita income and real national income over a long period of time (Shah & Attullah, 2011).

1.1.3 External Public Debt and Economic Growth

A study in Latin America by Fuentes and Calderón (2013) established that external public debt had an inverse relationship with economic growth. This shows that as external debts increase, economic growth slows down. In another study in Malawi by Tchereni et al. (2013), it was noted that external debt had an inverse but insignificant effect on economic growth. Mukui (2013) found out that external public debts and debt servicing had inverse and significant influence on economic growth. Shabbir (2013) examined how external public debt affected economic growth using a case of seventy developing states. It was noted that an increase in external public debts reduce private capital formation and therefore low economic growth.

Using evidence from Tanzania, Said and Kasidi (2013) in the effect of external public debts in economic growth noted that external debt had direct and significant relationship with economic growth. Debt servicing on the other hand was inversely related with economic growth. A rise in the level of debt beyond the limit makes it unsustainable to service and the country become heavily indebted. In a highly indebted country, there is a likelihood of crowding out effect and uncertainty. A high level of external debt can act as a deterrent to investor which leads to crowding out effect. In terms of uncertainty, an increase in debt level increases the risk perceptions of investors in the country and therefore local and foreign investors are discouraged to invest hence a slow economic growth (Panizza & Presbitero, 2014).

1.1.4 East African Community Countries

Founded in 1967, East Africa Community collapsed in the year 1977 before being revived in July, 7th of the year 2000. Currently there are six countries that form East Africa Community that include Kenya, Uganda, Tanzania, Rwanda, Burundi and South Sudan. It is headquartered in Arusha, Tanzania. The Treaty that established the East

Africa community guides the operations of the EAC. Currently, the EAC has a market size of 168 million people. The EAC is governed by the judiciary and the national assembly.

There has been an increasing trend in the level of external debts among East African countries. The statistics by IMF (2013) indicates that Burundi is the first indebted country with 72.3% followed by Kenya with 53%, Tanzania at 34%, Uganda at 27% and lastly Rwanda at 22%. The report further ranks Kenya as second with 28.5% foreign debt service while Burundi is leading with 50%. Different scholars have examined a link between public debt and economic growth (Babu, Kiprop, Kalio & Gisore, 2014). Despite this level of external debt, economic growth of East African countries has been impressive. According to East African Economic Outlook report (2018), countries in East Africa realized the best economic performance in the continent for the year 2017. The value of Gross Domestic Product GDP growth of 5.9% compared to the continental average of 3.6% (African Development Bank, 2018). This growth according to the report was however attributed to Kenya, Ethiopia and Rwanda. The question therefore remains whether the external debt has affected economic growth of other three East Africa countries (Uganda, Southern Sudan and Burundi) and this has informed this study.

1.2 Research Problem

Public debts play a crucial role in financing of deficit budget. However, too much debt may become unsustainable for the country since revenue will spend on repayment of the interest and the principal amount at the expense of encouraging investment and therefore economic growth. Too much external debts result into crowding out effect as it deters local and foreign investors from investing and this adversely harms the

economy (Herndon, Ash & Pollin, 2014). According to Mukui (2013), external debt has a negative influence on economic growth.

The level of public debt across East Africa countries has generally been on a rise. The statistics by IMF (2013) rates Burundi as the first indebted country with 72.3% followed by Kenya with 53%, Tanzania at 34%, Uganda at 27% and lastly Rwanda at 22%. This trend is worrying and if not controlled, it would become unsustainable and therefore affect economic growth of these countries. On average, the economy of Kenya grew by 5% over the period 2003-2013 which is much lower as compared to Uganda's growth of 7%, Tanzania's growth of 7%, Rwanda's growth of 7.1% and EAC average growth of 5.9% over the same period. East African countries have leveraged on public debts to finance long term projects in infrastructure, health and education. In Kenya for instance, out of the Kshs. 271 billion budgeted for 51 priority development projects in financial year 2014/2015, Kshs. 157 billion was to go to Standard Gauge Railway SGR. This amount was financed by the issued of Eurobond.

Several studies have been done on how public debt financing affect economic growth. Globally, Akram (2016) examined how public debt affected economic growth and noted that public debts negatively affect economic growth, neither external nor domestic debt servicing significantly affect income inequalities. In Swaziland, Ntshakala (2015) sought to determine how public debt affected economic growth and noted that external debt in Swaziland does not significantly influence economic growth unlike domestic debt that positively and significantly influenced economic growth. In Nigeria, Ndubuisi (2017) examined how external debt affected economic growth and established that external debts have an inverse effect on economic growth. Among South Asian countries, Akram (2016) sought to investigate how public debt affected

economic growth. It was noted that public debt had inverse relationship with economic growth. In Pakistan, Jibrán, Ali Hayat and Iqbal (2016) assessed how public debt affected economic growth. From the findings, external debts had an inverse and significant effect on Gross National Product and Gross National Product on short run and long run. These studies however were done in other countries some of which are advanced and developed like Pakistan and Swaziland and this creates a gap that the research seeks to fill.

Locally, Ngugi (2016) examined how public debt affected economic growth in Kenya and noted that public debt servicing, domestic debt, real interest rate and inflation affected the growth of the GDP negatively while external debt, real exchange rate, lagged GDP and private investment affected growth of the GDP positively. In another study to determine how public debts affected economic growth, Musyoka (2017) established that external debts negatively influenced economic growth, internal public debts positively and significantly affected economic growth and productive debt positively and significantly affected economic growth. Mweni (2014) critically examined how external debts influenced economic growth and noted that external debts had negative and positive effect on economic growth. Mukui (2013) assessed how external debts affected economic growth and noted that external debts and debt servicing had negative and significant relationship with economic growth. The above studies raise gaps as none of it covered East Africa as a whole. The current study seeks to fill this gap by answering the research question, how does public debt affect economic growth of East Africa Community countries?

1.3 Objective of the Study

The study sought to investigate the effect of external public debt financing on the economic growth of East African community countries.

1.4 Value of the Study

The study was to generate findings that was be of greater importance to the management of East African states, other regional economic blocks and future scholars and academicians. The study will generate valuable findings on sustainable level of public debt that has an effect on economic growth of East Africa countries.

Policy makers like central banks in individual member countries of East Africa community was to rely on the findings of the study to make relevant policies on public debts to be used in economic growth. The study was to offer meaningful findings on a sustainable level of external debt that is likely to enhance economic growth.

Academicians and other scholars were to use the findings to carry out similar studies in future for growth of knowledge. The study will build literature on public debt and economic growth.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covered the theories that formed the basis of the study. The empirical studies were also reviewed. The conceptual framework was presented showing relationships between the variables. The reviewed studies were summarized to indicate research and knowledge gaps.

2.2 Theoretical Review

A theoretical review was used to present theories used to guide the study. Theories represent proven facts on a given subject. A theoretical review formed the basis of the study. The study was anchored on the Debt Over-Hang Theory, Keynesian Model and the Ricardo theory of public.

2.2.1 Debt Over-Hang Theory

The theory was formulated by Krugman (1988) who coined the term 'debt overhang' a circumstance where the expected repayment ability of a country on its external debt drops below the contractual level of debt. The basic principle guiding this theory is that whenever there is a rise in the level of public debt so high that it becomes unsustainable for the country to repay, the estimated debt services is perceived to be a function of the overall output of the country. Hence, the current foreign creditor's tax away some of the returns obtained from investment in domestic economies. As such, the investment by new foreign and domestic investors is discouraged.

Debt serving include among other things the repayment of interest and the principal amount is likely to be linked with indebted states. It takes larger benefits from domestic economies for allocation to foreign economies and thus the country drops some outstanding multiplier-accelerator effect. With this, the domestic growing ability of the

country is reduced while increasing dependence on foreign debts (Chinaemerem & Anayochukwu, 2013).

Different scholars in different fields have applied this Debt overhang theory. For instance, Spiliotiand Vamvouka (2015) determined empirically the ratio of government consumption negatively affect Gross Domestic Product (GDP) in terms of per capita GDP. It was however not determined whether public debt significantly influenced per capita GDP. On the other hand, Fischer (1991) empirically established that fiscal deficit negatively affects per capita GDP. It was however unconfirmed whether or not, the public debt amount affects per-capita GDP (Kobayashi, 2015). This theory was relevant to the study because it explained the effect of external public debts on economic growth of East African countries. According to the theory, there is an expected negative relationship between external debts and economic growth and this study seeks to confirm this relationship among countries in East Africa.

2.2.2 Keynesian Model

The origin of Keynesian Model dates back in (1929-1939) that was characterised by Great Depression. It was advanced by John Maynard Keynes in 1936 in a book titled ‘The general theory of employment, Interest rates and money.’ The basic premise of the theory is that economy is not always at full employment. As such, it can either be at above or below its potential. The Great Depression is characterised by a rise in the level of unemployment resulting into failure of many businesses. The economy is operational lower than its potential.

This theory indicates that there exists no real burden related with public debt and it does not in any way affect economic growth and development (Metwally & Tamaschke, 1994). The real burden of debt happens at the time of expenditure. An expenditure on

other hand occurs when resources have been used up. Internal debt is the debt that the country owes itself and it does not add value to resource base.

However external debt is different from the internal debt. Unlike internal debt, external debt when prudently utilized can add value to economic resources. However, it will need to be repaid at a given time. There is an expansionary effect with substitution of current tax. This is because it shall increase public expenditure due to an increase in taxes. This results into a lower and different multiplier as compared to debt-financed public expenditure. In macro-economic terms therefore, public debts result into no contradicting forces (Savvides, 1992). The theory was relevant to this study as it explained how macro-economic variables (interest rate, inflation and exchange rate) influenced economic growth. Most of these macro-economic variables were used in fiscal and monetary policies to enhance economic growth.

2.2.3 Ricardo Theory of Public Debt

The theory was proposed by Ricardo (1772 –1823). According to this theory, the expenditures by the government whether ordinary or extra ordinary are majorly payments for sustaining unproductive employees. Ricardo noted that savings accruing from government expenditure would add up to income if not to contributors' capital (Roberts, 1942). On financing public expenditure, Ricardo noted that such funds would have to be drawn from liquid community resources and this makes no difference whether it is raised by loans or taxes.

Debt servicing according to Ricardo involved repayment of interest and the principal amount which simplified a transfer of wealth from one community pocket to the other. The community receiving the transferred wealth have two options; to productively

utilize it or squander it. However, whether the funds were productively employed or unproductively employed, Ricardo was not aware of this (Barro, 1979).

According to Ricardo, it was unprofitable to speculate in regard to which of the above possibilities stood out to be true. It was however possible to have deviations in one way or the other. Ricardo treated the problem of public debt on an assumption that different concerned sets of individuals would leverage on interest paid in a manner that is equally profitable (Battaglini & Coate, 2008).

2.3 Determinants of Economic Growth

This section presented the determinants of economic growth. Economic growth was affected by inflation rate, interest rate, exchange rates, Foreign Direct Investment FDI and public debts. Each of these factors were discussed in the subsequent section.

2.3.1 Inflation

Inflation is defined as persistent or a sustained increase in price of goods and services over a given length of time. According to Akers (2014), inflation is mostly measured by consumer price index CPI by determining the average retail level of prices. A rise in CPI shows an increased level of inflation. Inflation may negatively or positively affect economic growth of the country. An increase in general price of good over a given period of time may result into inflation (Kimani & Mutuku, 2013). Inflation does not indicate an increased cost in one product or service, but rather, an increase in overall level of prices of goods and services. Inflation is usually expressed as annual percentage rise in prices of goods and services.

Economic school of thought believes that an extremely high level of inflation is caused by increased growth in supply of money. There are varied views on moderate determinants of inflation in an economic system. Moderate or low level of inflation

may be attributed to fluctuations in real demand for products or changes in supplies available like during scarcities besides growth in supply of money. Consensus views however are that long sustained level of inflation is brought about by money supply growing faster than the rate of economic growth (Faust & Wright, 2013).

2.3.2 Interest Rate

Interest rate is the cost of borrowing money from the lender. In Economic terms, interest rate is the amount of capital allocation over a given period of time. Interest rate is used as one of the monetary tools for regulating the availability of credit facilities in an economy to increase savings and investments. According to Zaman *et al.* (2013), interest rate significantly predicts profitability of organizations. An increased interest rate increases the lending rate compared to the deposit rate and therefore profitability as the spread of bank is high. A reduction in interest rate on the other hand increases the deposit rate as compared to the lending rate and therefore keeping spread within the bank low.

2.3.3 Exchange Rate

Exchange rate is the benchmarking for converting one's currency to a foreign one for example a Kenya shilling against a USA dollar. A rise in exchange rate affects economic growth in terms of the value of exports and imports. Generally, a weak domestic currency relative to a foreign currency stimulates exports making imports more expensive. On the other hand, a strong domestic currency reduces exports and makes imports cheaper. In a study to determine how fluctuation in interest rate affected financial performance of commercial banks, Majok (2015) found out positive link between fluctuation in foreign exchange rate and financial performance of commercial banks. Performance in this context was determined by return on assets.

2.3.4 Foreign Direct Investment

Foreign direct investment occurs when an investor establishes businesses in a foreign country by acquiring foreign assets with control and ownership of the interest of the foreign country. Simply defined, it is an investment made to acquire a long-term investment in a foreign enterprise with the view of having a voice in the enterprises management. FDI measurement is based on FDI stock which is expressed as a percentage of the GDP of a country. It's normally published at the end of year or quarter with its components being outward FDI stock that includes residences equity investments and credits to foreign countries and inward FDI stock which is foreigners' equity investment and credits to host economy (Aleksynska & Havrylchuk, 2013).

2.3.5 Public Debts

Public debt is a means of financing government budget deficit. Public debts are composed of internal and external debts. External public debts take a long-time horizon with repayment of the interest and the principal amount. Examples of external debts include loans from IMF, World Bank and other financial partners like Africa Development Bank AfDB. External debts may also include issue of sovereign bonds like Eurobond in Kenya. Internal debts include issue of treasury bonds and treasury bills. These are regarded as risk free assets and they are highly demanded. Prudent external debts have is likely to result into economic growth especially when used productively. Productive use of debts includes acquisition of assets and investments in machinery and manufacturing (Jawadi & Sousa, 2013).

2.4 Empirical Studies

In developing countries, Upreti (2015) sought to determine factors affecting economic growth. The study used cross-country data for 76 countries from 2010, 2005, 2000, and 1995. The study relied on secondary data. From the findings, an increased export

volume, natural resource endowment, longer life expectancy and higher rates of investment positively affected economic growth of developing countries. The study period however was insufficient covering only four years although the sample size was adequate at 76.

Relying on evidence from Panel of Selected OECD Countries, Karagoz and Caglar (2016) assessed how debts affected economic growth. In total, the study selected 17 countries. The analysed findings indicated that for the OECD countries the foreign debt growth relationships is a positive one. The study however does not reveal the period it covered. It is also not clear how sampling of 17-member countries of OECD was done.

In India, Bal and Rath (2014) examined a link between public debt and economic growth. The study covered a period of 1980 and 2011. The study used the autoregressive distributed lag ARDL model. The key finding was that in long run, public debts affect economic growth. The study noted that debt services, total productivity factor (TPF) and government debts all have an influence on economic growth over a short time horizon. The study was done in one country (India). Comparison can be enhanced when similar studies are done in other countries.

In Turkey, Korkmaz (2015) examined relationship between external debt and economic growth. The study collected secondary data which was analysed using regression analysis. The study period was 2003 to 2014. From the findings, external debt significantly influenced economic growth of Turkey. The study was done in Turkey that is more developed compared to sub Saharan countries. Similar studies should therefore be done in Africa.

An empirical analysis of the Greek market was done by Spilioti and Vamvoukas (2015) to determine how government debts affected economic growth. Data covered a period of 1970 to 2010. The study noted significant positive relationship exist between economic growth and debt for Greece. The study was limited to government debts which could either be external or internal. The study was therefore not clear on the nature and type of debts that were covered. The current study is limited to external debts.

In Turkish economy, Doğan and Bilgili (2014) investigated a link was sought between economic growth and development for the period 1974 to 2009. The study used a multivariate dynamic Markov-Switching model. From the findings, public debt negatively affects economic growth. The study further established that the negative effect of public debts on economic growth is greater as compared to that private borrowing has on economic growth in Turkey.

In Philippines, Akram (2015) sought to determine how public debt affected economic growth. The period of the study was 1975 to 2010. The study used autoregressive distributed lag technique. From the findings, public debts negatively affect economic growth in Philippines. Domestic debt on the other hand negatively affects investment and positively influences the growth of the economy. Szabó (2013) examined how sovereign debt affected economic growth using evidence from European Union countries. In total, 27 countries were covered. The study used linear regression analysis and from the findings, an increase in debt to GDP reduces economic growth.

Kharusi and Ada (2018) assessed how external debt affected economic growth in emerging economies. The study was done in Oman using time series data. The period of data collection was 1990 to 2015. The researcher collected data from World bank

reports and the Central Bank of Oman. Autoregressive Distributed Lag cointegration was employed in analysis of the findings. From the findings, external debts had a negative and significant effect on economic growth. The study further noted that gross fixed capital had direct and Significant influence on growth of Oman. The study however was done in Oman which has different contextual settings as compared to countries across East Africa.

In Nigeria, Essien, Agboegbulem, Mba and Onumonu (2016) assessed how public debts affected economic growth. Among the techniques and methodologies used included Granger causality test and Vector Autoregressive framework. From the findings, the level of domestic and external debts did not significantly affect the output and the general level of prices over the study period. Furthermore, the prime lending rate is increased by the shock to external debt stock although with a lag. The study also covered public debts in totality. It is therefore important to carry out similar studies with specific reference to either external or internal debts.

Using regression results in Nigeria, Okoli (2014) examined how external debts affected economic growth. The study period was 1970 to 2010. The independent variables included exchange rate, total reserves, total revenue and total value of exports. From the findings, external debts had an inverse relationship with economic growth. Using time series covering a period of 1970 to 2009, Obademi (2013) analysed how external debts affected economic growth in Nigeria. From the findings, there was no significant relationship between external debts and economic growth on the long run. The studies were conducted in Nigeria, that belong to a different economic block like ECOWAS.

Another study in Nigeria by Nwanne and Eze (2015) assessed how servicing of external debts affected economic growth. The period was 1981 to 2013. From the findings, external debt servicing positively influenced economic growth both in long run and in short run. Solomon (2016) examined how external debt affected economic growth. The main source of data was secondary sources. The study was analysed using multiple regression. From the findings, external debts influenced economic growth. The study was limited to servicing of external debt and how it affected economic growth. However, debt servicing is only an aspect of external debt hence it did not cover external debts in totality.

In Kenya, Kobey (2016) examined the effect of public debt on economic growth. The study used a linear regression model to analyse Kenyan data from the economic years 1993/1994 to 2014/2015. The results indicated that inflation, public debts and unemployment negatively affected economic growth, but not significant as indicators of economic growth. The study was limited to Kenya. Similar studies should be done across countries in East Africa block.

Matiti (2013) examined the link between public debt and economic growth. The study relied on secondary data collected from relevant sources. The findings of the study indicated that domestic debts have greater interest rates as compared to external debts. The study further noted that external debt is contracted mostly in concessional terms and therefore its maintenance is expensive. The findings of this study are however limited in scope since it covered Kenya as member of EAC.

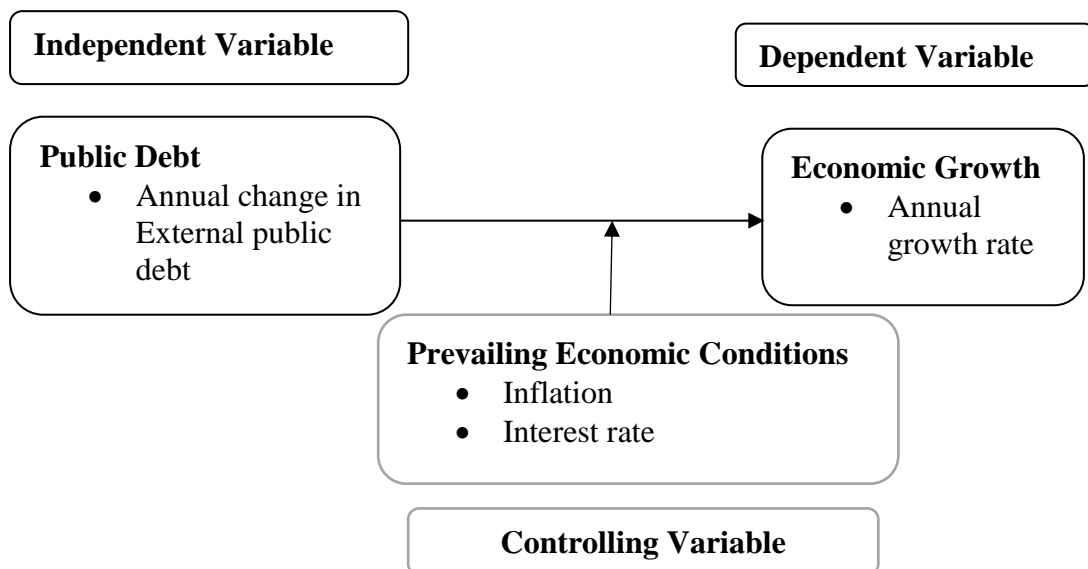
Muinga (2014) sought to determine how external public debt affected economic growth in Kenya. The study period was 1980 to 2011. GDP was used a function of external debt. Control variables included FDI, inflation, external debt and domestic value of

savings. The study established that serving of external debts had an inverse effect on economic growth.

2.5 Conceptual Framework

A conceptual frame work is a structure that indicates relationship between the variables of the study. It helps in identifying the dependent and the independent variables of the study. A conceptual framework shows how specific variables are measured into indicators. The conceptual Framework is shown in Figure 2.1 below.

Figure 2.1: Conceptual Framework



2.6 Summary of the Literature Review

Author of study	Focus of Study	Methodology	Findings	Knowledge Gaps	Focus of current study
Szabó (2013)	Sovereign debt and economic growth and development	Linear regression	An increase in debt to Gross Domestic Product reduces economic growth.	Was limited to one aspect of external debt	The current study will cover external debt in totality
Matiti (2013)	A link between public debt and economic growth	The study collected secondary data	Domestic debts have greater interest rates as compared to external debts	Covered domestic debt	The current study will assess how external debt affect economic growth
Bal and Rath (2014)	A link between public debt and economic growth	Autoregressive distributed lag ARDL model	Debt services, total productivity factor and central government debts all have an influence on economic growth on a short-term horizon.	Assessed effect of public debts on economic growth in totality	The current study specifically looks at external debts.
Doğan and Bilgili (2014)	A link was sought between economic growth and development	Multivariate dynamic Markov-Switching model	Public debts negatively affect economic growth	The study was done in one country (Turkey)	The current study covers multiple countries
Akram (2015)	Assessed whether public debt hindering economic growth	Autoregressive distributed lag technique	Public eternal debt negatively and significantly predicts economic growth in Philippines	It was done in Philippines that is faced with different conditions as Kenya	The current study covers 6 EAC member states
AgboegbulemMbaand Onumonu (2016)	How public debts affects economic growth	Vector Autoregressive Framework	Prime lending rate is increased by the shock to external debt stock although with a lag	It did not specify the type of public debt	The specific focus of the current study is external debt

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the research design, the population, the sample, data collection. Diagnostic tests and data analysis that was employed in the data collected were also presented.

3.2 Research Design

Research design dictates the methods for collection and analysis of the data to obtain findings. The study adopted a descriptive research design. According to Creswell (2013), descriptive approach refers to research questions that apply descriptive statistics as opposed to inferential statistics. A descriptive design was appropriate in determination of how public debts affect economic growth of countries in East Africa community.

3.3 Population

Population is a set of elements, objects and things that are of interest to the researcher. The population of this study comprised of member countries of East Africa Community. According to EAC report, there were 6-member countries (Appendix I). The population of the study was therefore 6-member countries of EAC. Due to small sample size, no sampling was done.

3.4 Data Collection

This study collected secondary data. This data was collected using data collection sheet (Appendix II). The researcher collected data from reports of respective bureaus of the countries, the World Bank reports, the IMF reports and the Africa Development Bank AfDB reports. The study covered a period of 2000-2017. This period was sufficient to produce a sizeable panel data suitable for regression analysis. According to Westland

(2010), the sample size of 30 elements is sufficient for regression and this justifies the period in this study. The study used secondary data because it was readily available and therefore saving on costs.

3.5 Diagnostic Tests/ Data Reliability or Validity

The study tested for multicollinearity, normality and autocorrelation in the data set before embarking on analysis. Multicollinearity was detected using Variance of Inflation Factor VIF, where values between 1-10 indicated absence of multicollinearity. Normality was detected using values of Skewness and Kurtosis. Autocorrelation was detected using Durbin Watson statistics.

3.6 Data Analysis

The collected data was sorted and cleaned in preparation for coding into excel and Statistical Package for Social Sciences SPSS. The analysis of the findings was done using descriptive and inferential statistics. The findings were analysed descriptively and inferentially. The adopted regression model took the following form;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where:

Y= Economic growth

α = Constant

X_1 = Public debt

X_2 = Prevailing economic condition (inflation)

X_3 = Prevailing economic condition (interest rate)

ϵ = Error Term

β_1, β_2 = Coefficient

P values were used to determine significance of individual variables. P values less than 0.05 implied significance of the variables. An Analysis of Variance (ANOVA) was conducted at 5% level of significance. The value of F critical was compared with the calculated F to determine the overall significance of the model.

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter covers the analysis and interpretation of the findings of the study. The main objective of the study was to determine the influence of external debt on economic growth of East African Community. The study collected secondary data from relevant publications which were coded into SPSS software and the findings are shown in subsequent sections.

4.2 Descriptive Statistics

The findings of means and standard deviation of the study are shown in Table 4.4.

Table 4.1: Descriptive Statistics

	Min	Max	Mean	Std. Deviation
External Public Debt (ratio)	19.2	383.72	10.025	.030
Inflation (%)	-0.3	15.4	9.146	.199
Interest Rate (%)	-9,75	22.38	12.52	1.891
Economic Growth (%)	0.2	13.2	5.48	.471

Source, Research Data (2018)

From Table 4.1 indicates that on average countries in East Africa had external debts to GDP of 10.025%, annual inflation of 9.146%, interest rates of 12.52% and economic growth of 5.48%.

4.3 Diagnostic Tests

Before carrying out regression analysis, the researcher carried out diagnostic tests as shown in subsequent sections.

4.3.1 Normality Test

Normality test was detected using Skewness and Kurtosis as shown in Table 4.2.

Table 4.2: Normality Test

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
External Public Debt	90	.505	.174	.819	.346
Inflation	90	.441	.174	.202	.346
Interest Rate	90	.295	.174	.901	.346
Economic Growth	90	.091	.174	.357	.346

Source, Research Data (2018)

Table 4.2 indicates that values of Skewness and Kurtosis of the data that was used in the study. From the findings, all variables had Skewness and Kurtosis values within the range of +2 or -2. This shows that the data set was normally distributed and thus was not in violation of the regression assumptions.

4.3.2 Multicollinearity Test

Multicollinearity test sought to determine whether variables were correlated with each other as shown in Table 4.3.

Table 4.3: Multicollinearity Test

	Collinearity Statistics	
	Tolerance	VIF
External Public Debt	.871	1.147
Inflation	.337	2.967
Interest Rate	.712	1.404
Economic Growth	.267	3.775

Source, Research Data (2018)

The findings in Table 4.3 indicate that all the study variables had VIF values within the range of 1-10. This infers that there was no multicollinearity in the data set and therefore it was suitable for regression analysis.

4.3.3 Autocorrelation Test

Autocorrelation was tested by use of Durbin Watson Statistics as shown in Table 4.4.

Table 4.4: Autocorrelation Test

Model	Durbin-Watson
1	1.546

Source, Research Data (2018)

Table 4.4 indicates the value of autocorrelation as 1.546. This shows that the data set had no serial correlation and thus it was suitable for carrying out regression analysis.

4.4 Regression Results

To establish how external debts influenced economic growth of individual member countries of EAC, the researcher conducted regression analysis. The findings are shown in subsequent sections.

4.4.1 Regression for Kenya

The findings of regression analysis on how external debt influences economic growth of Kenya are summarized in Table 4.5.

Table 4.5: Regression for Kenya

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	7.083	1.867		3.795	.000
External Public Debt	1.190	.079	.812	15.091	.000
Inflation	.786	.086	1.114	9.136	.000
Interest Rate	.466	.118	.758	3.943	.000
R=.812^a	R²=.659	Adj. R²=.656	F=227.740	Sig=.000	d.f=3, 14

Source, Research Data (2018)

The coefficient of determination R square from Table 4.5 is 0.659. This shows that 65.9% change in economic growth in Kenya is explained by its external debt. The p values for external debt $p=0.000$ is less than 0.05. This thus infers that external debts have significant influence on economic growth of Kenya.

4.4.2 Regression for Uganda

The findings of how external debts influence economic growth of Uganda are shown in Table 4.6.

Table 4.6: Regression for Uganda

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	9.199	2.489		3.696	.000
External Public Debt	1.307	.108	.745	12.144	.000
Inflation	.029	.003	.367	8.619	.000
Interest Rate	.019	.003	.245	6.426	.000
R=.745^a	R²=.556	Adj. R²=.552	F=147.469	Sig=.000	dd.f=3, 14

Source, Research Data (2018)

From Table 4.6 above, 55.6% change in economic growth in Uganda is explained by its external debts. The p value $p=0.000$ indicates that external debts has significant influence on economic growth of Uganda. Inflation and interest rate were significant control variables in the relationship between external debts and economic growth. This is because their p values are 0.000 and 0.000 respectively which are less than 0.05.

4.4.3 Regression for Tanzania

The regression results of how external debts influence economic growth of Tanzania are shown in Table 4.7.

Table 4.7: Regression for Tanzania

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.414	.183		2.260	.025
External Public Debt	.133	.009	.915	14.926	.000
Inflation	.461	.101	.311	4.561	.000
Interest Rate	.304	.089	.625	3.422	.001
R=.875	R²=.766	Adj. R²=.761	F =162.985	d.f=3, 14	Sig=.000

Source, Research Data (2018)

The results in Table 4.7 indicate that 76.1% change in economic growth of Tanzania is explained by the level of external debts. The p value was 0.000 showing that external debts significantly influenced economic growth. Inflation and interest rate were significant control variables in the relationship between external debts and economic

growth. This is because their p values are 0.000 and 0.000 respectively which are less than 0.05.

4.4.4 Regression for Rwanda

The regression results for Rwanda are shown in Table 4.8.

Table 4.8: Regression for Rwanda

	Unstandardized Coefficients		Standardize	t	Sig.
	B	Std. Error	d Coefficients Beta		
(Constant)	3.232	.345		9.375	.000
External Public Debt	.184	.009	1.263	19.707	.000
Inflation	2.347	.223	1.583	10.514	.000
Interest Rate	.663	.080	.844	8.250	.000
R=.914	R²=.835	Adj. R²=.831	F=201.120	d.f=3, 14	Sig=.000

Source, Research Data (2018)

From the findings in Table 4.8 above, 83.1% change in economic growth of Rwanda is explained by its external debt level. The p value was 0.000 which is less than 0.05 and thus external debt had significant influence on economic growth of Rwanda. Inflation and interest rate were significant control variables in the relationship between external debts and economic growth. This is because their p values are 0.000 and 0.000 respectively which are less than 0.05.

4.4.5 Regression for Burundi

The findings of regression analysis on the influence of external growth on economic growth of Burundi are shown in Table 4.9.

Table 4.9: Regression for Burundi

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	11.611	2.492		4.660	.000
External Public Debt	1.241	.095	.770	13.097	.000
Inflation	.255	.076	.235	3.365	.001
Interest Rate	.160	.062	.111	2.574	.011
R=.770	R²=.592	Adj. R²=.589	F=171.544	Sig=.000	d.f=3, 14

Source, Research Data (2018)

From Table 4.9, the coefficient of determination is 0.592 which indicates that 59.2% change in economic growth of Burundi is explained by its external debt. Inflation and interest rate were significant control variables in the relationship between external debts and economic growth. This is because their p values are 0.000 and 0.000 respectively which are less than 0.05.

4.4.6 Overall Regression Findings for EAC Members

The regression findings of the overall effect of external debts on all EAC member countries are shown in Table 4.10.

Table 4.10: Overall Regression Findings for EAC Members

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.413	1.608		1.501	.136
External Public Debt	.895	.061	.803	14.640	.000
Inflation	.466	.118	.758	3.943	.000
Interest Rate	.635	.219	.768	2.905	.006
R=.803^a	R²=.645	Adj. R²=.642	F=214.338	Sig=.000	d.f=3, 86

Source, Research Data (2018)

As shown in Table 4.10, 64.5% change in economic growth in East Africa Community is explained by the external debts of the member states. Inflation and interest rate were significant control variables in the relationship between external debts and economic

growth. This is because their p values are 0.000 and 0.000 respectively which are less than 0.05.

4.5 Discussion of Results

From regression analysis at individual country level, the study revealed that 65.9% change in economic growth of Kenya is explained by its external debt. The p value $p=0.000$ which is less than 0.05. The finding is in line with Bal and Rath (2014) who examined a link between public debt and economic growth and revealed that in the long run, public debts affect economic growth.

In Uganda, 55.6% change in economic growth is explained by its external debts. The p value was 0.000 which is less than 0.05. The finding contradicts with Kobey (2016) who examined the effect of public debt on economic growth and established that inflation, public debts and unemployment negatively affected economic growth, but not significant as indicators of economic growth.

In Tanzania, 76.1% change in economic growth is explained by the level of external debts. The p value $p=0.000$ which is less than 0.05. The findings contradict with Essien, Agboegbulem, Mba and Onumonu (2016) who assessed how public debts affected economic growth and revealed that the level of domestic and external debts did not significantly affect the output and the general level of prices over the study period.

For Rwanda, the study revealed that 83.1% change in economic growth is explained by its external debt level. The p value was 0.000 which is lower than 0.05. The finding is inconsistent with Ntshakala (2015) who sought to determine how public debt affected economic growth and noted that external debt in Swaziland does not significantly influence economic growth.

With regard to Burundi, 59.2% change in economic growth is explained by its external debt. The p value was 0.000 which is less than 0.05. The finding is in line with Mweni (2014) who critically examined how external debts influenced economic growth and noted that external debts had negative and positive effect on economic growth. Mukui (2013) also assessed how external debts affected economic growth and noted that external debts and debt servicing had negative and significant relationship with economic growth

In general, external debts had most influence on economic growth of Rwanda followed by Tanzania, Kenya, Burundi and lastly Uganda. The finding is in line with IMF (2013) that showed that economy of Kenya grew by 5% over the period 2003-2013 which is much lower as compared to Uganda's growth of 7%, Tanzania's growth of 7%, Rwanda's growth of 7.1% and EAC average growth of 5.9% over the same period.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the analysed findings from the collected data. The study makes conclusions based on the established findings. The recommendations and suggestions for further studies are also provided.

5.2 Summary of the Findings

The aim of the study was to determine the effect of external public debts on economic growth of EAC. The study was informed by the Debt Overhang Theory, Keynesian Model and the Ricardo Theory of Public Debt. The study adopted a descriptive design with a population of six-member states of EAC. Data was collected from secondary sources covering a period from 2000 all through to 2017. Out of the six-member states of EAC, data was readily available from 5 countries.

Diagnostic tests were conducted on the data before analysis started. Normality was tested by use of Skewness and Kurtosis. From the findings, the established values were within the prescribed threshold implying that the data set was normally distributed. The VIF values during the test for multicollinearity were within the stipulated thresholds showing that the data set had no multicollinearity. The test for autocorrelation also yielded conclusive findings that there was no serial correlation in the dataset.

The descriptive statistics were conducted that included mean and standard deviations. From the findings, all member states of EAC on average had accumulated a significant level of external debts coupled with some inflationary pressure and relatively higher lower interest rates on lending. The economic growth of EAC on average however was

impressive. This could imply that despite accumulation of large amount of external debts by EAC members, economic growth has been stable.

From regression analysis at individual country level, the study revealed that 65.9% change in economic growth of Kenya is explained by its external debt. The p value $p=0.000$ which is less than 0.05. In Uganda, 55.6% change in economic growth is explained by its external debts. The p value was 0.000 which is less than 0.05. In Tanzania, 76.1% change in economic growth is explained by the level of external debts. The p value $p=0.000$ which is less than 0.05. For Rwanda, the study revealed that 83.1% change in economic growth is explained by its external debt level. The p value was 0.000 which is lower than 0.05. With regard to Burundi, 59.2% change in economic growth is explained by its external debt. The p value was 0.000 which is less than 0.05. On overall, 64.5% change in economic growth in East Africa Community is explained by the external debts of the member states. The p value $p=0.000$ which is less than 0.05. This shows that external debt significantly influenced economic growth of the EAC.

5.3 Conclusions

The study concludes that external debt significantly influenced economic growth of Kenya as a country. Ntshakala (2015) sought to determine how public debt affected economic growth and noted that external debt in Swaziland does not significantly influence economic growth unlike domestic debt that positively and significantly influenced economic growth.

External debts significantly influenced economic growth of Uganda, Tanzania, Rwanda and Burundi. Jibrán, Ali Hayat and Iqbal (2016) assessed how public debt affected economic growth. From the findings, external debts had an inverse and significant effect on Gross National Product and Gross National Product on short run and long run.

In general, external debts had most influence on economic growth of Rwanda followed by Tanzania, Kenya, Burundi and lastly Uganda. On overall, a significant change in economic growth in East Africa Community is explained by the external debts of the member states. External debt significantly influenced economic growth of the EAC.

5.4 Recommendations

The study recommends that the National treasuries of member states of EAC should carefully consider increasing the level of their external debts based on their ability to service and the overall capacity. This is because a rise in external debt would significantly result into economic growth.

Member countries of EAC should have clearly established threshold of a rise in level of external beyond which an alarm should be raised to signal danger. This will act as a check and balance on the level of external debt so that it does not rise to an unsustainable level.

The member countries of EAC should borrow external debts for the purpose of economic growth. However, borrowing the debt with the aim of repaying another debt or for recurrent expenditure would not significantly influence economic growth of a country. For economic growth of a recipient country, prudent spending should be put in place.

5.5 Limitations of the Study

The study relied on secondary data that was collected from central banks and national treasuries of respective member states of EAC. However, secondary data is the second-hand source of information that may be prone to biasness. This further indicates that a similar study done using both primary and secondary data would yield inconsistent findings with the current study.

The study period was from 2000 all through to 2017. The study therefore excluded 2018 and before 2000. However, significant events have occurred across EAC especially in Kenya that may have an influence on the study. For instance, the level of external debt has significantly grown in the country which the current study did not take into account.

The current study was only limited to member countries of the EAC. In total, 6 countries were used as the population but data was available from 5 countries. By focussing on EAC member states alone, it means that similar studies done across Africa as a whole would not consistently give similar results. This is because of the increased size of members that would have an influence on the findings.

5.6 Suggestions for Further Studies

The study recommends future studies to supplement secondary data with primary information. This would eliminate the likelihood of biasness that would result from reliance on secondary data alone. Primary data for the study can be collected by several methods including use of questionnaires, direct observation and use of interview guides and focussed group discussions.

The study further recommends future scholars carrying out further studies to consider increasing the timeframe to factor in current periods including 2018 for more comprehensive comparison. The extension should not only go beyond 2017 but it should also consider a period before 2000. This would involve adoption of panel data methodologies.

Future scholars should focus on countries across Africa as a whole apart from members of EAC in their studies. This would increase the population and ultimately the sample size of the study. The findings of the study would ultimately change also. This would also facilitate comparative analysis of various regions across Africa as a continent.

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APPENDICES

Appendix I: Member Countries of East Africa Community

1. Kenya
2. Uganda
3. Tanzania
4. Rwanda
5. Burundi
6. South Sudan

Appendix II: Data Collection Sheet

Year	Public debt (Annual change in External public debt)	Economic growth (Annual Economic growth rate)	Inflation	Interest Rate
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				
2011				
2012				
2013				
2014				
2015				
2016				
2017				

Appendix III: Data Collected from Tanzania

Year	Country	GDP (growth rate)	Inflation	Interest Rate	Public Debt
2000	Tanzania	4.9	6	21.58	43.75
2001	Tanzania	6	5.1	20.06	50.04
2002	Tanzania	7.2	4.6	16.4	44.31
2003	Tanzania	6.9	4.4	14.52	44.6
2004	Tanzania	7.8	4.1	14.14	46.78
2005	Tanzania	8.2	4.4	15.25	32.82
2006	Tanzania	4.7	7.3	15.65	21.6
2007	Tanzania	8.5	7	16.01	20.8
2008	Tanzania	5.6	10.3	14.98	21.5
2009	Tanzania	5.4	12.1	15.03	24.4
2010	Tanzania	6.4	7.2	14.34	27.3
2011	Tanzania	7.9	12.7	14.96	27.8
2012	Tanzania	5.1	16	15.56	29.2
2013	Tanzania	7.3	7.9	15.96	30.9
2014	Tanzania	7	6.1	16.29	33.8
2015	Tanzania	7	5.6	16.1	36.9
2016	Tanzania	7	5.2	15.96	37.2
2017	Tanzania	7.1	5.3	16.19	37.4

Appendix IV: Data Collected from Kenya

Year	Country	GDP (growth rate)	Inflation	Interest Rate	Public Debt
2000	Kenya	0.3	7.8	22.33	73.81
2001	Kenya	4	5.8	19.67	81.73
2002	Kenya	0.5	2.2	18.51	91.46
2003	Kenya	2.9	6	16.37	101.05
2004	Kenya	4.6	8.4	12.53	97.25
2005	Kenya	5.7	7.8	12.89	101.40
2006	Kenya	5.9	6	13.64	113.57
2007	Kenya	6.9	4.3	13.33	122.62
2008	Kenya	0.2	15.1	14.02	148.76
2009	Kenya	3.3	10.6	14.8	152.36
2010	Kenya	8.4	4.3	14.36	177.45
2011	Kenya	6.1	14	15.05	179.47
2012	Kenya	4.6	9.4	19.65	221.12
2013	Kenya	5.9	5.7	17.31	242.32
2014	Kenya	5.4	6.9	16.51	298.81
2015	Kenya	5.7	6.6	16.16	330.43
2016	Kenya	5.8	6.3	16.58	377.17
2017	Kenya	4.8	8	13.67	382.72

Appendix V: Data Collected from Rwanda

Year	Country	GDP (growth rate)	Inflation	Interest Rate	Public Debt
2000	Rwanda	8.4	3.9	13.3	102.484
2001	Rwanda	8.5	3.4	15.04	98.618
2002	Rwanda	13.2	2	22.38	107.871
2003	Rwanda	2.2	7.4	-4.76	100.589
2004	Rwanda	7.4	12	2.55	90.78
2005	Rwanda	9.4	9.1	6.09	70.646
2006	Rwanda	9.2	8.8	4.78	26.57
2007	Rwanda	7.6	9.1	3.8	26.7
2008	Rwanda	11.2	15.4	1.72	20.895
2009	Rwanda	6.2	10.3	7.83	22.618
2010	Rwanda	7.3	2.3	14.03	22.766
2011	Rwanda	8	5.7	7.68	23.724
2012	Rwanda	8.6	6.3	10.87	23.705
2013	Rwanda	4.7	4.2	12.25	29.037
2014	Rwanda	7.8	1.8	13.79	27.997
2015	Rwanda	8.9	2.5	17	23.9
2016	Rwanda	6	5.7	11.18	27.6
2017	Rwanda	6.1	4.8	9.18	28.9

Appendix VI: Data Collected from Uganda

Year	Country	GDP (growth rate)	Inflation	Interest Rate	Public Debt
2000	Uganda	3.1	3.4	10.62	55.69
2001	Uganda	5.2	1.9	17.33	56.82
2002	Uganda	8.7	-0.3	23	61.79
2003	Uganda	6.5	8.7	10.33	60.85
2004	Uganda	6.8	3.7	4.34	55.95
2005	Uganda	6.3	8.6	21.77	47.61
2006	Uganda	10.8	7.2	15.91	31.7
2007	Uganda	8.4	6.1	10.98	19.98
2008	Uganda	8.7	12	13.24	20.3
2009	Uganda	6.8	13	-9.75	19.2
2010	Uganda	5.6	3.7	8.69	22.4
2011	Uganda	9.4	15	16.44	23.4
2012	Uganda	3.8	12.7	3.81	24.5
2013	Uganda	3.6	4.9	18.51	27.6
2014	Uganda	5.1	3.1	17.58	30.7
2015	Uganda	5.2	5.4	16.76	33.3
2016	Uganda	4.7	5.5	19.67	37.3
2017	Uganda	4.0	5.6	14.43	38.6

Appendix VII: Data from Burundi

Year	Country	GDP (growth rate)	Inflation	Interest Rate	Public Debt
2000	Burundi	-0.09	24.31	15.77	136.41
2001	Burundi	2.1	7.87	16.82	127.37
2002	Burundi	4.4	-1.26	19.47	159.07
2003	Burundi	-1.2	10.57	18.23	171.94
2004	Burundi	4.8	8.18	18.25	172.71
2005	Burundi	0.9	13.25	18.44	136.96
2006	Burundi	5.4	2.74	17.07	102.52
2007	Burundi	4.8	8.41	16.84	125.7
2008	Burundi	5	24.41	16.52	140.28
2009	Burundi	3.5	10.56	14.08	132.71
2010	Burundi	3.8	6.49	12.42	130.54
2011	Burundi	4.2	9.58	13.23	135.74
2012	Burundi	4	18.17	14.32	133.76
2013	Burundi	4.6	7.94	15.15	130.54
2014	Burundi	4.7	4.42	15.67	135.7
2015	Burundi	-3.9	5.6	15.33	135.6
2016	Burundi	-0.6	5.5	14.24	145.23
2017	Burundi	0.5	16.6	14.8	154.4