

**EFFECT OF FOREIGN DEBT ON ECONOMIC GROWTH IN KENYA**

**BY**

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**REG NO: D63/72611/2014**

**A RESEARCH PROPOSAL SUBMITTED IN PARTIAL FULFILMENT OF  
THE REQUIREMENT FOR THE AWARD OF A DEGREE IN MASTER OF  
SCIENCE IN FINANCE, SCHOOL OF BUSINESS  
UNIVERSITY OF NAIROBI**

**NOVEMBER, 2016**

## **DECLARATION**

I, the undersigned, declare that this project is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

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This research project has been submitted for examination with our approval as the University supervisors.

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## **ACKNOWLEDGEMENT**

Special thanks go to my supervisor Dr. Iraya, for providing unlimited guidance throughout the study. His wider knowledge of the subject matter enabled me to shape this research project to the product that it is now.

I also thank my family for the varied support they have accorded me towards the completion of this work.

Finally, I owe my gratitude to a number of people who in one way or another contributed towards completion of this project especially my fellow students, my employer and colleagues at work place.

## **DEDICATION**

This work is dedicated to my mother Hellen, she has always inspired, guided and supported me in my entire career journey.

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## **ABBREVIATIONS AND ACRONYMNS**

<b>CBK</b>	Central Bank of Kenya
<b>CBN</b>	Central Bank of Nigeria
<b>CNY</b>	Chinese Yuan
<b>EXRATE</b>	Exchange Rate
<b>FDEBT</b>	Foreign Debt
<b>FDI</b>	Foreign Direct Investment
<b>GBP</b>	Great Britain Pound
<b>GDP</b>	Gross Domestic Product
<b>HIPC</b>	Heavily Indebted Poor Countries
<b>IMF</b>	International Monetary Fund
<b>INFL</b>	Inflation Rate
<b>KES</b>	Kenya Shilling
<b>LDC</b>	Less Developing Countries
<b>OLS</b>	Ordinary Least Square
<b>PPP</b>	Purchasing Power Parity
<b>SPSS</b>	Statistical Package for Social Sciences.
<b>ToT</b>	Terms of Trade
<b>US</b>	United States
<b>USD</b>	United States Dollar
<b>XR</b>	Exchange Rate

## ABSTRACT

In Kenya, foreign borrowing and economic growth have been on the rise over the years. The main objective of this study was to investigate the effect of Kenya's foreign borrowing on its economy. Various empirical studies have revealed contradicting results on the relationship between these two variables both locally and internationally. The current study was motivated by lack of similar studies covering same period and methodology in Kenya. So as to determine comparative relationship between dependent and the predictor variables, control variables were incorporated in to the study. These were Inflation, Foreign Direct Investment, Exchange Rate, Terms of Trade and Interest rate. The study covered a period of 40 years as from 1975 to 2014 with the seven variables. Secondary data was used and this was collected from Central Bank of Kenya website, the World Bank Website and from the Kenya National Bureau of Statistics website. The software used in the analysis was SPSS version 20. This was useful in generating outcome reports like the descriptive statistics, correlation output for the dependent and independent variables, multiple regression analysis output. Ms. Office Excel was used to demonstrate the trend of the dependent and independent variables graphically. The graphical output revealed a general upward trend of both the economic growth and the foreign debt. SPSS output results showed that 80.40% of the changes in Kenya's economic growth was explained by the model. The F statistic (22.57) was significant at 5% level. Further, the study revealed that exchange rate and FDI had a significant effect on economic growth. ToT revealed a positive relationship, however this was not significant at 5%. However, the effect of both interest rate and inflation on economic growth was negative. The study further revealed that 36.72% of the GDP fluctuations in Kenya was influenced by foreign debt. Lastly the study concludes that Kenya's foreign debt positively affects GDP growth and this was consistent with Keynesian Model and some empirical studies as highlighted in this context. While there was a good attempt at exploring other factors which influence economic growth other than foreign debt, it cannot be claimed that the factors used in this study are exhaustive. Thus there are other factors which were left out of this study hence the model used may be limited in this respect. Therefore, this study recommends a similar study with a larger sample and more variables to be carried out especially in Africa, where most of the countries are deemed net borrowers.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The impact of external debt financing on a country's economic changes has been an area of much debate both locally and globally. Kawai (2002) described debt as way of liquidating future anticipated earnings to the present at a cost. According to modern law debt is that which one person owes the other and is enforceable for repayment in future. Nwoke (1990) further defined debt as resource borrowed by a country for use and doesn't in any way belong to that nation. Sovereign states in most cases borrow through issue of securities both locally and in the international markets. Every nation would appreciate a stable and sustainable economy (Shabbir, 2012). The most effective tool for economic growth is sound macroeconomic policies focusing on both private and public investment to generate wealth, increase productivity, national income and employment, reduce inflation, and finance public service provision (Saungweme & Mufandaedza, 2013). However, most countries are unable to collect enough revenue to finance their activities. Ali & Mustafa (2009), national budgets rely on domestic and external debt to finance economy growth and expansion, making public debt an area of concern among policy makers especially in developing countries.

The 2008 global financial crisis and the ensuing economic recession escalated debt ratios. For instance, in 2007 the debt ratio in United Kingdom rose by 40% of GDP in 2011 this rose 84% of GDP. In United States it rose from 60 % to around 100 % of GDP and in Japan by 50% of GDP (Nautet & Meensel, 2012). The rise in debt ratio in these developed countries was attributed to the loss of revenue due to the global

recession. While the economic recovery packages targeting the financial sector accounted for the increasing debt ratios, this effect was only a small proportion with the major cause being the growth of budget deficits (Gupta & Granados, 2009). Since 2010, economies, economic recovery has been reported around the world, but the upward trend of public debt ratios in developed countries is yet to be arrested (Checherita & Rother, 2010).

In contrast, developing nations reported on average low debt ratios as compared to the ones reported by the developed countries. This was because developing countries had small initial debt fractions in this era (Nautet & Meensel, 2012). The debt ratio for emerging countries remained relatively stable at approximately 35 % of National Income, this reflect a favourable and sustainable economy. Balassone et al., (2010) Debt crisis is highly experienced in developing and emerging economies. This is manifested by high debt to GDP ratios. Nautet and Meensel (2012) further indicated that due to poor institutions and policies, poorly diversified economies, and adverse terms of trade, poor countries were not in a position to contain higher levels of debt.

Most developing countries have poor debt policies and structures caused by poorly designed international financial architecture. This has led them to excessive borrowing leading to eroding of their economy (UN, 2009). For the years between 1995 to 2009, the average sovereign credit rating of a developing country revolved between BB- and BBB while that of developed nations averaged above AA+ (UN, 2009). This resulted to exorbitant borrowing costs. Evidence by UN (2009) further shows that Latin America and Africa in comparison to developed countries have higher debt ratios with 6 percentage points for Africa and 4percentage points for

Latin America (UN, 2009). In contrast, East Europe and Asia's mean borrowing levels are relatively less in comparison to the mean in the developed nations (UN, 2009), which however does not imply that public debt is not a problem in developing countries (Muhanji, 2010).

The most important factor to be considered by a nation or a corporate before undertaking any foreign debt is the denomination of the currency to be borrowed (Gyimah-brempong, 2002). Based on its growth, an entity might want to raise its currency from the foreign market due to the following three major reasons: Firstly, for hedging purposes, this safeguards an entity against foreign currency exchange rates fluctuations (Khattak, 2008). Secondly, borrowing from the Euromarkets may be cheaper compared to borrowing from the local markets, this is because an entity may get amnesty from capital controls and other taxes imposed by the most states. Thirdly, for speculative reasons this ensures that the entity has enough savings in the form of foreign currencies that enables it to undertake any foreign investment opportunity that may come across (Gordon, 2007)

### **1.1.1 Foreign Currency Debt**

This is debt that is obtained from a different country and payable in a currency other than the local currency (Kumar, 2010). A sovereign government can issue a bond denominated in various foreign currencies or in its own currency to fund its operations, issuing the debt in a foreign strong currency has an advantage in hedging against fluctuations in the exchange rate. There's a distinct advantage to issuing debt in a country's own currency, if it has trouble repaying the bond when it matures, the treasury can simply print more money (seigniorage) but this is no longer worth as

much. The problem with printing money, however, is that it expands money supply, which often drives inflation up. (Buchanan, 2008).

In international economic relations, foreign currency loans can be described as credit negotiated among two countries with clear terms agreed upon by the two nations. Currently the countries that offer credit terms are those that are termed as developed countries, they are advanced in terms of industrialization. Example of such countries are: United States of America, Europe, China and Japan. The borrowing countries are those referred to as third world countries, they are under developed and most of their operations are less industrialised. They include countries found in Asia, Latin America and Africa. Generally foreign loans should be meant for development purposes, to be applied for investment, for industrialization rather than for recurrent expenditures .The main objective of these loans should for long term improvement of the living standards of the citizens in any given sovereign estate. (Moki, 2012).

Due to its widespread economic implication, foreign currency debt has over time been one of the main areas of concern among the policy makers and researchers. The effect of foreign borrowing on the macroeconomic factors has been given a wider spectrum in various states through research. Cavallo, et.al. (2002) in a similar study ,came up with a model that revealed foreign debt contributes highly on the exchange rate rise leading to the deteriorating of the domestic economy. Some of the sources of foreign currency loans includes international banks, international financial markets like the capital and the euro markets, World Bank, IMF (Udoka & Anyingang, 2010).

### **1.1.2 Economic Growth**

According to Anwar (2012) economic growth is the increase in per capita output which leads to rising in public average income. It is a country's production of commodities in comparison to prior periods of time. This can be revealed via indicators such as inflation, interest rate fluctuations, Exchange rate volatility, level of unemployment, level of exports and imports. It shows the potential of a country through the growth in its National Income or the GDP. In other words economic growth is identified when the Production Possibility Frontier shifts towards the right side. Parash (2003) found out that a nation rich in valuable natural resources, capital investment, net exports and a long life expectancy has a significant positive impact on GDP

One of the key factors contributing to economic growth is life expectancy. A country that has invested more on health conditions has a high life expectancy margins (Aisen & Veiga, 2006). In another similar study by Cervellati (2009) concluded that improvement health conditions boots wealth accumulation which leading to economic growth of a country. Ogunmuyiwa (1996) carried out a study on one hundred countries covering a period of 30 years 1960 to 1990. The study aimed at investigating the major contributors to economic growth in the areas under study. His finding revealed that growth in GDP was affected by a lower inflation rate, smaller government consumption, good policies, education levels, capital investment, openness to trade and the level of democracy. Economic growth is enhanced by International trade through more of export and less of import in a country.

Because of economic traps developing countries have had a challenge in the increase in their GDP this is despite the foreign grants and other support availed from the

developed countries. These traps include lack of the rule of law, internal war, inadequate natural resources, overdependence on a sole country for trade and insufficient strong knowledgeable leadership (Collier, 2007). In finance changes in economic conditions can be manifested through macroeconomic variables such as general change in interest rates, change in inflation rates, changing exchange rates and unemployment rates.

### **1.1.3 Foreign Debt and Economic Growth**

The debate on impact of external borrowing on economic growth has resulted to varied conclusion both in developed and developing countries. Reinhart and Rogoff (2010) carried out a study on relationship between external debt and economic growth a sample of 20 developed countries for a period of 200 year. The findings revealed a negative and weak relationship between Economic growth and foreign debt. In a similar study by Clements et al. (2003) it was found that a massive reduction in foreign debt by highly indebted countries leads to an increase in economic growth. Gelos (2010) concluded that developed stable countries had the access to larger credit facilities compared to less developed countries.

Musembi (2012), the most effective tool for economic growth in Africa is sound macroeconomic policies focusing on both private and public investment to generate wealth, increase productivity, national income and employment, reduce inflation, and finance public service provision (Saungweme & Mufandaedza, 2013). However, most countries in Africa are unable to collect enough revenue to finance national budgets, they rely on domestic and external debt to finance economy growth and expansion (Koo, 2010).



A conclusive finding on the effect of foreign debt on economic growth is yet to be established. In his study on the impact of public debt on Gross Domestic Product of both Developing and developed countries (Ndambiri, 2012) concluded that the relationship between public debt and economic growth varies across nations. Some governments have well established mechanisms that controls the application of borrowed finances leading to proper utilization hence shooting up of their economy. This is contrary to some who mis-apply these finances leading to debt overhang which turns out to be a crisis rather than an asset. Odhiambo (2010) established the negative impact of foreign debt on the growth of an economy is heavily felt in emerging governments in comparison to developed ones. Developed nations have exploited their resources to a greater extend which aid in servicing their debt obligations.

#### **1.1.4 Kenya's Foreign Currency Debt**

Kenya's debt in general, has been on increase over time. The data from World Bank (2012) indicates that Kenya had an external debt stock of USD. 470.53 million in 1970. Total debt had risen to USD.8.40 billion by 2010. With External debt composition of up to almost half of the total debt. Public debt rose to KES.1.9 trillion according to the Quarterly Economic and Budgetary Review (October, 2013), with gross public debt increasing from KES. 1.633 trillion (June 2012) to KES. 1.894 trillion (June 2013), comprising external debt and domestic debt of 44.5% and 55.5% respectively.

By December 2014 public and publicly guaranteed foreign debt increased to KES 1.17 trillion from 1.086 trillion (June 2014). This was an increase of KES.84.8 billion.

The same article states that the foreign debt denominated in USD increased from June 2014 to December 2014 from 40% to 45.10% respectively. Euro debt declined from 29.90% to 26.90% while Japanese Yen denominated debt declined from 12.10% to 10.10% during the period. This is according to CBK's monthly economic review for December 2014.

The report also reveals that Kenya used KES 9.3 billion to repay foreign debt in 2014. This comprised of KES 6.6 as interest and 2.7 billion as the principle amounts. Kenya also raised USD.2 billion in 2014 through floating of a Eurobond in the Ireland stock market to partly go towards financing a KES.330 billion deficit in the national budget. Kenya's total debt amounts to KES.2.5 trillion both domestic and external as at December 2014. This data shows that Kenya's debt and the foreign currency in particular has been on the rise since. Though debt is good, the government is advised to borrow and invest wisely. Wray (2009).

## **1.2 Research Problem**

The 2008 global financial crisis and the ensuing economic recession escalated debt ratios. In the euro area, the debt ratio rose from 66% in 2007 to 88 % in 2011 (Nautet & Meensel, 2012), while Ireland recorded almost 90% of GDP. Greece recorded a 50% of GDP. In the same case, Spain and Portugal's public debt has expanded considerably, by more than 30%. Although the rise in the public debt was weaker in some euro countries, it was still felt with the increase ranging from 10% to 20% of the Gross Domestic Product.

There have been concerns among policymakers heavy increase in external borrowing

has risk of eroding the government's public image, particularly if not supported by a comparable growth in economy (Nord, Harris and Giugale, 2013). Due to this, various studies have been conducted both locally and internationally on impact of foreign debt on economic growth in general. Contradicting findings have been realised. In a global scene for instance, (Reinhart, 2009) studied the effect of external debt on economic growth, using multiple regression analytical method, found out that external debt has a negative impact on economic growth and financial stability.

Miller & Foster (2012) showed that there are varied and sometimes contradictory findings on how foreign debt affects the economy from country to country. Nersisyan & Wray (2010) also established that excessive sovereign debt does not necessarily hurt growth. In addition, (Checherita & Rother, 2010) concluded that foreign debt has a long term effect of about 90% to 100% on economic growth. Shabbir (2013) carried out a study in 70 developing countries on the relationship between external debt and economic growth from 1976 to 2011. He found out that increase in external debt increases a county's liabilities hence a negative effect on the economic growth.

As far as 1960s and 1970s, economists have argued that external borrowing is the main contributor to economic growth in developing countries. This was if this debt is properly utilised. This led to various studies carried out to confirm this argument, they include: Pattillo et al. (2004), Karagol (2002), Geiger (1990), Were (2001), Kalima (2002), Schclarek (2004) and Chowdhury (1994). In different countries, they studied the impact of foreign debt in economic growth. They also used varied analytical methods, the results of these studies varied and the conclusion differed from country to country.

The Kenyan government has persistently failed to collect adequate resources to finance its budget, and continues to depend on external and domestic debt to finance its developmental activities (Putonoi & Mutuku, 2013). Kenya's public debt surged to 1.9 trillion according to the Quarterly Economic and Budgetary Review (October, 2013), with gross public debt increasing from KES 1.633 trillion by June 2012 to KES 1.894 trillion by June, 2013, made of 44.5% external debt and 55.5% local debt. Publicly guaranteed loans rose from KES.84.8 billion to KES.1.17 trillion in December 2014, with the dollar denominated debt increasing from 40% in June 2014 to 45.10% in December 2014. This shows an increasing trend in foreign debt and if not well contained, may pose a threat to the economy of Kenya.

Although various studies have been conducted, there still exists a gap of knowledge whereby no study has been done for the period being covered in the study. In addition, international studies conducted were in different macroeconomic environment as opposed to the one in Kenya. If this is applied to the Kenyan context it would be arbitrary. Similarly, various analytical tools and variables were applied in the previous studies which are different from the ones this study is going to focus on. This is the gap the present study seeks to bridge. The study poses the question: what is the effect of foreign currency debt on Kenya's economy? The study seek to answer this question by performing an empirical analysis using multiple regression method. It is expected that the economic growth experienced in Kenya over the last 40 years was attributed to foreign currency loans.

### **1.3 Research Objective**

The objective of the study is to establish the effect of foreign debt on economic growth in Kenya.

### **1.4 Value of the Study**

There is need to understand how increase in foreign currency debt and other debts in general affects economic growth and development. (Nord, Harris & Giugale, 2013) indicated that there have been concerns among policymakers that the uncontrolled rise in foreign debt may lead to poor ranking of a nation in terms of development especially when the debt increase doesn't match the growth in economy .

Findings of this study can be utilized by the government to inform fiscal policy, monetary policy, and foreign currency debt management. The study is also important to researchers and academicians as it will be a useful guide for future researchers interested in undertaking a similar study. It can also be useful to potential investors who may wish to lend Kenyan government in terms of foreign currency. This study may be of help in establishing the credit rating of the Kenyan government.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter examines both the theoretical and empirical literature on foreign currency debt and its effect on the growth of an economy. The first section 2.2 examines theoretical literature, section 2.3 highlights determinants of economic growth, and section 2.4 is the empirical review. Section 2.5 is the summary.

#### **2.2 Theoretical Literature**

Theoretical literature perspective in regards to the area under the study, the correlation between debt in general and economic growth tend to show a negative relationship. Entities and governments that secure loans for the sole purpose of general consumptions portray the above argument to a greater extent. In which case no extra income is generated for the purposes of settling the raised debt. Modigliani (1961), in addition to the studies and findings of (Buchanan, 1958), identified public borrowing as a calamity to the forthcoming citizens, due the increase in the tax bracket which reduces the cash inflow for the private sector hence a damage to their capital creation.

Modigliani (1961) established that long term interest rates imposed on the long term loans extended to the private sector in a given country leads to capital reduction, this is later manifested in the deterioration of the level of the economy in the affected nation. This also tends to increase the marginal product ratio in the private sector. Modigliani emphasized that this debt would be a burden to the future generation He

considered that public debt would be of benefit to the current generation but a burden to the coming generation. Hence the current generation should put into consideration the welfare of the forthcoming generation while entering into long term debt treaties.

### **2.2.1 Keynesian Model**

This theory postulates that there is no real burden associated with foreign debt. As long as foreign debt is applied into constructive economic activities, in that its effect will always be in line with the growth in the economy (Metwally & Tamaschke, 1994). Keynes model recognizes external debt is more useful compared to the domestic debt as this can be placed into long term income generating projects with the caution of repayment in the mind of the government representation. Further to this, domestic debt is owed to ourselves hence doesn't add to a nation's resource base. On the other foreign debt is different as it adds resource to the economy and this has to be repaid for some time.

When the government increases its tax in order to meet the increase in its expenses, an immediate macro-expansionary effect is experienced to the economy and this causes a lower multiplier as opposed to public expenditures financed through public debt. However on debt has no contractionary effect in macro terms (Savvides, 1992). The theory poses a challenge which the study seeks to find out whether this is true with Kenya. This is whether external debt adds value to the economy as the theory states. Using the right analytical tools and the data from the reliable sources, the study will confirm whether the arguments posed in this model holds.

### **2.2.2 Debt Overhang Theory**

This theory was first postulated by (Myers, 1977) in his paper on corporate valuation and debt financing, he examines why companies do not finance their activities with maximum debt even though there clearly exists a tax-advantage due to the deductibility of interest rates. The reason, he explains, for this is that high amounts of debt, or debt itself, distorts the possibilities for companies to make optimal future investment decisions. Debt induces a behaviour where positive net present value projects do not get undertaken due to the fact that parts of future earnings from projects goes to creditors in the form of promised payments.

In a further study, Krugman (1988) defined “debt overhang” as a state whereby government’s foreign debt settlement is burdened due to insufficient government income. The government expenditure become higher than its revenues leading to a challenge in foreign debt repayment. Cohen’s (1993) considered that foreign debt posts a non-linear relationship to investment, this being one of the indicators of economic growth. Clements et al. (2003) supported Cohens sediments by indicating that foreign debt can be a significant factor for economic growth of any nation. But further to this, he explained that debt is only good up to a certain level beyond which it may lead a nation to a “debt Overhang” condition.

This theory is significant in this study as it brings in the argument that debt can only be good up to a certain level, beyond which taxes and other revenues generated thereafter by the country may go into financing such existing debt. This may hinder further investment in the long run. A government should put in place policies which can be able to control the extent to which the foreign debt have to be borrowed and



the level of utilization. This will ensure controlled utilization of the borrowed funds.

### **2.2.3 Buchanan Theory**

This theory postulates that the burden of debt is usually carried over to the future generations. The current generation enjoys the benefits of the loan but the generation involved in the repayment mostly is the future one hence bears the burden (Geiger, 1990). The burden comes in when the government fails to raise enough revenue to service its public debt. Due to this the government may be forced to raise national taxes so as to be able to raise the required amounts for the loan repayment. In this case the citizens bears the burden. This in most cases doesn't occur to the current generation but the future one.

This scenario is also true not only to foreign debt but also to domestic debt. Since the future generation will never be present in the at the point of debt borrowing, the current generation may proceed in excessive borrowing without minding the welfare of the future Rarely is the interest of the future generation put into consideration when a nation proceed to undertake foreign debts (Cohen, 1993). Generally, this is a violation of the basic democratic right of the future generation as the current debt burden is offloaded onto their shoulders yet they never benefited from it.

Buchanan concluded that the burden of the current tax payers was loosened through debt financing. In this case the tax burden was reduced because the government had a substitute source of income to finance its operations. Universally Buchanan's Principles in regards to Public Debt is the main recipe for the shift of the cost of public activity costs to the future generation. The claim raised by Buchanan as above

treats a generation as an acting and unitary entity. Buchanan's theory borrows a lot from the case where foreign debt was incurred and a battleship was bought to be used in the world war in 1943. The burden was shifted to the generations that lived thereafter, in which case they enjoyed little or no benefit from the debt acquired in their absence.

Buchanan finally concluded that public debt financing has two major transactions: One where in exchange for amortization payments, the lenders financed the battleship. The other transaction is where the current generation enjoys the debt and shifts the burden of the debt to the forthcoming generation through coerced increased statutory taxes. This theory is useful as the study will also be directed into revealing whether the debt burden is actually shifted to the future generations. This is to be portrayed when forecasted onto the future to establish the impact on future economic curve.

## **2.3 Determinants of Economic Growth**

In this section, the study highlights major factors that affect economic growth of a nation. Factors influencing economic growth positively are in part 2.3.1 to 2.3.4, while those that have a negative effect are in part 2.3.4 to 2.3.6.

### **2.3.1 Foreign Direct Investment**

Dritsakis & Adamopoulos (2006) using multivariate autoregressive VAR model examined empirically the causal relationship among Capital formation, Exports, GDP and Foreign Direct Investment in Greece. The study was as from 1960 to 2002. The study, through the co-integrated results revealed that there is only one co-integrated vector between the variables examined in the study, they also carried out Granger

causality tests which showed a unidirectional relationship between FDI and GDP. In a similar study De Gregorio & Lee (1998) established that FDI play a significant positive role in economic growth. The emphasize in their study was the need for sufficient absorptive capability in the host economy .They concluded human capital was a major contributor to economic growth, FDI being a control variable. Moudatsou (2003) conducted a study covering European countries between the periods 1980 to 1996, the finding showed that there is a strong and significant relationship between FDI and economic growth.

### **2.3.2 Interest Rate**

The current Central Bank of Kenya (CBK) rate is a major determining factor on how investors place their money on various investment channels. The returns on both the Treasury bills and bonds among other financial instruments is affected by this rate. When the CBK's monetary policy committee raised the CBR from 7% to 18% in order to curb rising inflation in the country during the last half of 2011, evidence suggests that the real economic growth slowed by 1.6% to 3.5% in just four months to April 2012- even with the advent of rain, which is normally a catalyst to economic growth (Central Bank of Kenya, 2012).

The fluctuation of the rate of interest affects not only the investment decisions of a business person but also the psychology of the consumer. Generally, continuous rise in interest rates causes the spending by the business person and the consumer to reduce. This causes the earnings to fall hence a drop in stock prices. On the other hand, a fall in interest rates increases the spending by both the businesses and the consumer as a result the stock prices increase. (Keynes, 1936).

### **2.3.3 International Trade**

In global trade, both the exporting and the importing nation benefits in one way or another in the business process. Countries do engage in business to import what they do not produce locally or produce in smaller portions and export what they have in excess Kavoussi (1984) conducted a study to establish the effect of multinational trade on national income in Nigeria, he found out a positive correlation between the two variables .The study concluded by stating that inter-country trade is viable for both the poor and the developed countries.. Sachs and Warner (1995) compared the economic performance between the closed and open economies in Africa. He found out that countries willing and able to undertake business with other countries performed well economically compared to those that depended only on their own local production.

In a similar study, Reinhart and Rogoff (2009) found that with nations' high and valuable exports the outright results are higher economic growth, hence a stronger correlation between the net export and GDP. His findings showed that with a higher level of exports than imports, the positive change in the economy is felt to a greater margin and this is applicable in both the low and the middle income economies. Nyamwange (2009) found that on yearly basis closed economies had lower economic performance as compared to open developing. A government that is ready to partner with another one for commercial trade, however poor it is has potential for better and improved economic growth (Nwoke, 1990).

#### **2.3.4. Human Capital.**

Level of education of the occupants of a given country determines to a greater percentage the rank in its economy. Barro (1999) found that a state's economy changes by 0.7% annually upon change in the level of schooling by a year. Education enhances human capital by equipping the citizens with necessary knowledge and skills required in work, this increases the quality and general productivity levels. Al Nassar (2007) revealed that the workers' motivation at work place was positively correlated to the level of education and skills acquired. In his study, education was a measure of human capital.

Johnson (2011) researched on the contribution of human resource on the economy in Kenya. The study focused on the government expenditure mainly on education and healthcare in the years (1981-2011). The analysis indicated a strong relationship between the two variables. In another study, Ndambiri et al (2012) based on a panel data of 19 Sub Saharan countries for the years 1982-2000, sought to find out the determinants of economic growth in the region. The study employed the Generalized Method of Moments (GMM) to account for economic growth factors in the region under study. The results indicate that physical capital formation and human capital significantly contribute to the growth of economy in sub-Saharan countries.

#### **2.3.5 Economic Policies**

Government policies on macroeconomic factors have attracted much debate owing to their influence on economic performance of a given country. Economic policies sets up guidelines and foundation within which economic activities operates, hence their influence on economic growth (Barro & Sala-I-Martin, 1995). Example of

macroeconomic variables influenced by economic policies includes; infrastructure, investment in human capital, legal and political institutions influence. A country may have rich natural resources which may boost its economic position but without clear well thought economic policies, the economic performance in that country may be highly challenged. Stable economic policies favour growth manifested in macroeconomic indicators this is due to the reduction in uncertainty. Macroeconomic instability hinders economic growth due the effect on productivity and investment as a result of instability.

### **2.3.6 Corruption**

Corruption as a factor to economic growth has been an area of interest among policy makers and researchers. This goes hand in hand with governance as a factor to economic growth. Gyimah-brempong, K. (2002) investigated the effect of corruption and wealth distribution on the economy in Africa. He used a dynamic panel estimator to get the outcome of the study. His findings revealed that corruption influences economic growth negatively. An increase in corruption drains down the economy as it kills the potential of the country to invest in more productive sector. An increase in corruption by one unit leads to decrease in per capita income and GDP by 0.39 percentage points. Murro (1995) carried a study on 67 countries and the findings showed that decrease in corruption by 1 standard deviation led to an increase in GDP by 1.3%.

### **2.3.7 Inflation**

Kasidi and Said (2013) carried out a study on the effect of inflation on economic growth in Tanzania. The study covered the period 1990 to 2011. Time series data was

used during the study to reveal the relationship. The relationship between GDP and inflation was established by the correlation coefficient and co-integration technique. The responsiveness of change in price levels (general price elasticity) due to change in GDP was established through the coefficient of elasticity. The results indicated that the relationship between the two variables was weak and negative. (Fischer (1993) identified several macroeconomic factors with impact on economic growth including inflation.

Morrissey & Lloyd (2007) studied the relationship between human resource development and change in economy in Kenya. The specific objective in the study was the role of foreign aid. The study employed multivariate approach in the analysis and focused on one element of growth. Time series data was used. The study covered the period 1964 to 2002. The findings suggested that imports in GDP and shares of private and public investment have strong beneficial effects on per capita income in Kenya, the contrary results were the foreign which indicated dampness in the economy.

## **2.4 Empirical Literature**

The findings on various empirical studies have showed varied results on the relationship between foreign debt and economic growth. A significant number of recent studies have revealed that higher levels of public debt hampers economic growth more so in the long run. The issue has been of great discussion considering the government's commitment to settle both the principle and the interests accrued over the stated debt period. This section critically reviews recent studies undertaken their findings, conclusion and recommendations.

Kedia (2001), carried out a study on factors affecting a firm's decision to issue foreign debt. The study focused on main decision for a firm to float debt stock in the following ten currencies: examined the decision of firms to issue debt in the following ten currencies: Swiss Franc, French Franc, British Pound, Australian, Dollar, German Mark, Canadian Dollar, Italian Lira, Dutch Mark, Guilder, Swedish Kroner, and Japanese Yen. A sample of large US firms were selected with a fraction of subsidiaries of a firms which operate in other countries under the study. The findings suggested that foreign transactions and operations of a firm is a major factor to be considered before choosing the currency for debt issue. Firms transacting internationally are more likely to raise their capital and also issue foreign debt instruments in foreign currency so as to hedge their increased exposure.

Checherita and Rother (2010), investigated in Euro Zone countries the average impact of public loan per-capita on GDP growth for a period of 40 years, the study reported a negative relationship between total loans and GDP especially in in the long run, approximately 90% to 100% of GDP. Confidence levels showed that the onset of negative impacts starts at around 70% to 80% of GDP, hence the need for well thought debt policies (Checherita & Rother, 2010). Econometric analyses presented by Miller & Foster (2012) the negative impact starts when Debt to GDP ratio is 35%, while debt levels can be high as 90% in developed countries.

Atique and Malik (2012) examined the effect of domestic and foreign debt on GDP and in addition the factors of economic growth, these studies were done separately. The study was carried out in Pakistan over the period 1980 to 2010. The study employed Unit Root Testing, Ordinary Least Square approach, Serial, CUSUM test of



stability for heteroscedasticity checking. The research findings revealed an inverse relationship between the variables under study. Both relationships were significant. The study suggested that higher amounts of foreign debt lead to slow growth of the economy more than the amount of domestic debt.

Shabbir (2013) investigated the relationship between foreign loan and economic growth in developing countries covering the period 1976 to 2011. The study covered a total of 70 countries. The study established that the general rise in external debt liability hinders the capability of a country to service the increasing debt this leads to a negative effect on economic growth. In addition, higher external debt levels reduces the brings down the operations of private sector in terms of business growth and development. Investment and FDI play a positive role in increasing economic growth while openness positively influences the development of welfare in developing economies.

Pattillo et al. (2002) carried out an investigation covering the period 1969 to 1998 on the impact of foreign debt on Economic growth in developing countries. This study considered a total of 93 developing countries. The results suggested a negative relationship between the foreign debt and per capita GDP with debt NPV levels of 35 to 40% of GDP. Clement et al. (2003) did a similar research covering the period 1970 to 1999. This research considered a total of 55 low income nations. The outcome revealed a change of approximately 20 to 25% of GDP due to the change in the NPV of external loan stock.

Ezeabasili (2011) investigated the relationship between foreign debt and economic

growth in Nigeria. The study covered the period between 1975 and 2006, a period characterised by external debt escalation. Using the co-integration approach, the study findings evidenced presence of co-integration among the variables. This relationship was at one per cent (1%) Level of Significance (LoS). Error estimates showed that there is a negative relationship between external debt and economic growth in Nigeria; a 1% increase in external debt led to a 0.027% decrease in the Gross Domestic Product. As such the researcher recommended that the country should take into consideration cheaper loan stocks with favourable terms like elongated repayment periods during negotiations.

In another Nigerian study, Boboye & Ojo (2010) investigated the effect of debt burden on economic growth and development. A regression analysis, OLS was used to analyse data (secondary) from Central Bank of Nigeria (CBN), Economic review, Business Times, Financial Standard and other relevant Nigerian publications covering the variables. An increase in foreign debt led to a decrease in National income with higher levels of foreign debt leading to retrenchments, increased workers strike, national currency devaluation and deteriorated educational platform leading to economic depression. Based on these findings, the researcher recommended that debt should be applied in appropriate profitable investments where they can generate reasonable amount of money to fund debt repayment.

Were (2001) established that managing of the foreign debt among developing countries has been the main challenge. He categorised these countries as those found mostly in Sub Saharan Africa including Kenya, These countries were referred to as HIPCs. High levels of external debt incurred by Kenya has a significant effect on the

country's economic growth and future debt sustainability initiatives. In a similar study, Were examined the impact and composition of foreign debt and its impact on economic growth and private sector. Were found out that foreign debt in Kenya is mainly official with a bigger percentage made of debt from multilateral sources. He also established that Kenya's external debt has been on the rise over the years with steady increase evidenced in the 1990s. Using time series data covering the period between 1970 and 1995, the study confirmed external debt accumulation and its negative impact on economic growth and development. While the government of Kenya continued servicing external debt, the inflows crowded out private investment, hence the need for the government to create debt relief measures while ensuring that there is efficiency and increased productivity of public investments.

Putnoi & Mutuku (2012) concentrated on the effects of Kenya's domestic debt owing to the shift in the structure of total Kenyan debt in preference to its domestic debt. The study covered the period between 2000 and 2010 where quarterly Time series data was applied with econometric techniques. So as to reveal clear properties of the macroeconomic time series aspect of unit roots and normality, Augmented Dickey-Fuller (ADF and Jacque Bera (JB) tests were used. Engel-Granger residual based and Johannes VAR based co-integration tests were used to establish the long run relationship among the variables. The results established an increase in domestic debt over the period under study in Kenya. The relationship between domestic debt and economic growth was positive and significant. Basing on the findings above, the researchers recommended local government borrowing with wise investment in capital opportunities.

These empirical findings show varied and contradicting finding on the relationship between foreign debt and economic growth. That as long as a country is able to apply its debt stock in productive investment s ,this reciprocates by providing enough cash flow which may be used to service the loan. Heavy debt does not necessarily imply slow economic growth, but rather lack of enough mechanisms to apply the loan in productive areas (Were, 2001). Countries may have huge loan stocks but very active in international trade leading to higher cash inflows that may be used to pay off the loans.

On the other hand uncontrolled huge foreign debt stock may have a significant diverse impact on the economic growth, especially when this is mis-applied to unproductive area, may lead to a situation called debt overhang in a country (Ali & Mustafa, 2009). In any sovereign estate contingent liabilities (public debt or publicly guaranteed), have a prominent impact on the progress of any economy. According to (Boboye & Ojo, 2012) developing economies have limited ability to raise adequate revenues and also lack proper utilization of debt productively, mobilize investment and invent new jobs. This eventually creates a dilemma of lower revenue base which affects spending capacity and by extension higher debt servicing (Shabbir, 2012).

## **2.5 Summary of Literature Review**

A number of theories that explains the effect of foreign currency debt have been reviewed in this chapter. Such theories include the Keynesian theory, Debt Overhang theory and the Buchanan theory. These theories have revealed varied opinion. There is no real burden associated with the foreign debt and no effect on economic growth (Keynesian theory).An increase in foreign debt will have a positive effect on

economic growth up to a certain level after which it will exhibit a negative impact (Debt Overhang theory). Debt involves a postponement of the burden of taxation to the future generation (Buchanan theory).

Second, studies on the determinants of economic growth have been reviewed with similar evidence from both the international and local scenes. Such studies include Dritsakis & Adamopoulos (2006) in Greece, Ogunmuyiwa (1996) a panel of 100 countries in Africa, Gyimah-brempong study on African countries, Ndambiri et al. (2012) a panel of 19 sub-Saharan countries, Kasidi & Said (2013) in Tanzania, Johnson (2011) and Morrissey and Lloyd (2007) both in Kenya. Further studies on the effect of external debt on economic growth have also been reviewed in this literature. They include Checherita & Rother (2010) studied Euro-Zone countries, Atique and Malik (2012) in Pakistan, Shabbir (2013) in developing countries, Ogunmuyiwa (2010), Ezeabasili et al. (2011), Boboye & Ojo (2010) study in Nigeria, Kasidi & Said (2011) in Tanzania,

The literature also reviews studies carried out in Kenya on the effect of foreign external debt in Kenya such as Were (2001), Putnoi and Mutuku (2012). From this review, it is clear that studies in Kenya on the effect of foreign debt on economic growth are however lacking hence the gap the present study seeks to bridge. In conclusion, the literature shows various studies that have been done on the relationship between external debt and macroeconomic indicators, such as GDP, inflation, Interest rate, official exchange rate (OER). A majority of studies focus on the relationship between external debt and GDP, but even these are inconclusive.

Higher government debt ratios depress growth through crowding-out effects on investments and inefficient resource use (Checherita & Rother, 2010), increase government interest payments forcing the government to default or impose inflation tax (Miller and Foster, 2012). On the contrary, Nersisyan and Wray (2010) report that if debt financing is prudently pursued; it exerts positive effects on economic growth. Cecchetti and Zampoll (2011) also report that external debt exerts a positive effect on domestic savings, investment and economic growth.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the methodology that will be used to carry out the study. The chapter is organized as follows. The research design is presented in section 3.2 while section 3.3 shows data collection method. Section 3.4 presents the data analysis, with sub-sections of analytical model in 3.4.1 and test of significance in 3.4.2.

#### **3.2 Research Design**

Given that this study seek to study the effect of foreign debt on economic growth, the most appropriate design for the study will be the descriptive design. According to Bickman and Rog (1998) descriptive studies can answer questions such as “what is” or “what was.” The study will cover the period beginning 2002 to 2014 with eight (10) variables on which data will be collected. The data will be quarterly for the 13 year period for all the ten variables in the study.

#### **3.3 Data Collection**

Secondary data will be used in this study. The data will be collected from various sources. These will include the World Bank website, the Central Bank of Kenya, and the Kenya National Bureau of Statistics, the Kenya National Treasury. The data will be collected for 13 year period, quarterly basis. This period will be deemed long enough to capture the variations in the variables over the timeline.

### 3.4 Data analysis

The study will conduct a multiple regression analysis SPSS analysis tool. Inferential statistics will be analysed using regression analysis to establish the relationship among study variables and to test the hypothesized relationships. Inferential statistics will be carried out using multiple regression models as suggested by (Mugenda, 2003) the regression models will be used to test the magnitude of the independent variables. After the magnitude of the predictor variables is established, the variables that revealed the model best will be used in the sequential multiple regression to determine the independent variable that best predict the dependent variable as recommended by Gall *et al* (2003).

#### 3.4.1 Analytical model

The multiple regression analysis will be represented by the following equation:

$$\text{GDP} = f(\text{FDEBT}, \text{INFL}, \text{FDI}, \text{XR}, \text{TOT}, \text{IR}) \dots\dots\dots (1)$$

Where:-

**GDP** –Is the Gross Domestic Product. Defined as the sum of gross value per year added by all resident producers in Kenya plus any product taxes and minus any subsidies not included in the value of the products. This is the Dependent variable.

**FDEBT**-Foreign Debt, This is loan stock owed to non-residents repayable in currency goods, or services. The study considered the sum of public, publicly



guaranteed, and private nonguaranteed long-term debt, expected to have a positive effect on GDP.

**INFL** -Is the inflation rate. It reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services. The study expects a negative effect on GDP.

**FDI**- Is Foreign Direct Investment. This is the annual direct investment equity flow in the Kenya economy. It is the sum of equity capital, reinvestment of earnings, and other capital. FDI was predicted to have a positive effect on GDP.

**XR**- Is the official exchange per year. It is calculated annually based on monthly average. Its effect on GDP was predicted to be negative.

**TOT**- Is Terms of Trade .It is the value of Export against the Imports expressed as a ratio. Expected to have an inverse relationship on GDP.

**IR** - Is the Interest Rate defined as the average annual lending interest rate. Lending rate is the bank rate that usually meets the short- and medium-term financing needs, expected to have a negative effect on GDP.

The empirical model will be as follows:-

$$\mathbf{GDP} = \alpha + \beta_1 X_1 - \beta_2 X_2 - \beta_3 X_3 + \beta_4 X_4 - \beta_5 X_5 - \beta_6 X_6 + \mu \dots 2$$

The Gross Domestic Product (GDP) was the dependent variable while the independent variable was the Foreign Debt converted into KES (X1). The control variables were FDEBT, INFL, EXRATE, FDI and IR. The constraint ( $\alpha$ ) is the constant constraint, ( $\beta_1$ ..... $\beta_6$ ) are the coefficients of the independent variables, ( $\mu$ ) depict exogenous factors not captured by the model.

The strength of the relationship between the dependent and the independent variables was established using the Analysis of Variance (ANOVA), the t-test, the f-test. Multiple regression was applied to test the level of significance of the two variables at 95% level of significance. The relationship between these variables was demonstrated in the form of graphs while the analysed data was through tables.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND FINDINGS**

#### **4.1 Introduction**

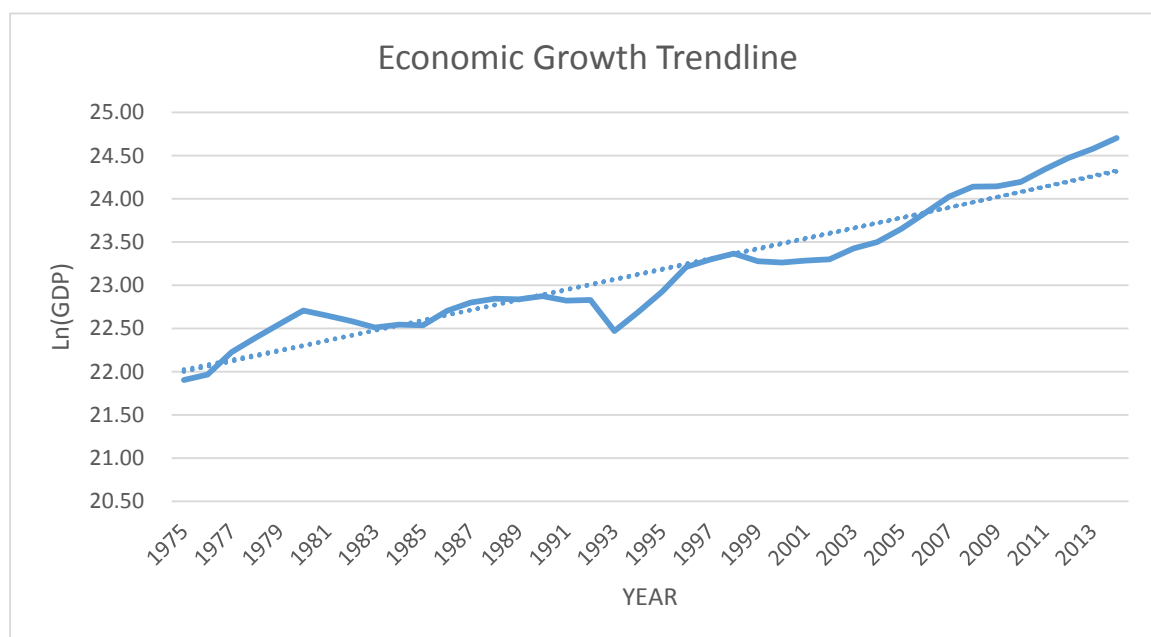
This chapter presents the results of the study based on the analysis performed. The presentation is made in terms of descriptive results and multivariate results. The descriptive results are shown in section 4.2 where trends for economic growth and for foreign debt from 1975 to 2014 are graphically presented. The section also presents in a tabular form summary descriptive statistics such as mean and standard deviation. The multivariate results in section 4.3 present correlation and regression results. Section 4.4 presents a discussion of findings where the results are compared against the hypotheses earlier made in the study. Lastly, section 4.5 is the summary of findings.

This analysis is based on secondary data collected from the World Bank, Central Bank of Kenya, and the Kenya National Bureau of Statistics from 1975 – 2014. Data on the following variables was collected: GDP, Foreign debt, Inflation rate, Lending interest rate, Terms of trade, FDI inflows and Foreign exchange rate. The data for the entire period was available and was therefore collected and organized into Excel Spread sheets. The Excel was used to re-organise the data into the specific variables for further analysis as had been envisaged in the model selected for the study. This data was then transferred into the SPSS version 20 for further analysis.

## 4.2 Descriptive Analysis

Graph 1 presents the Economic Growth Performance from 1975 to 2014. The Economic Growth is presented in terms of its natural logarithm (Ln) and not in absolute values. As shown, the Economic Growth has generally been on an upward trend over the period under study.

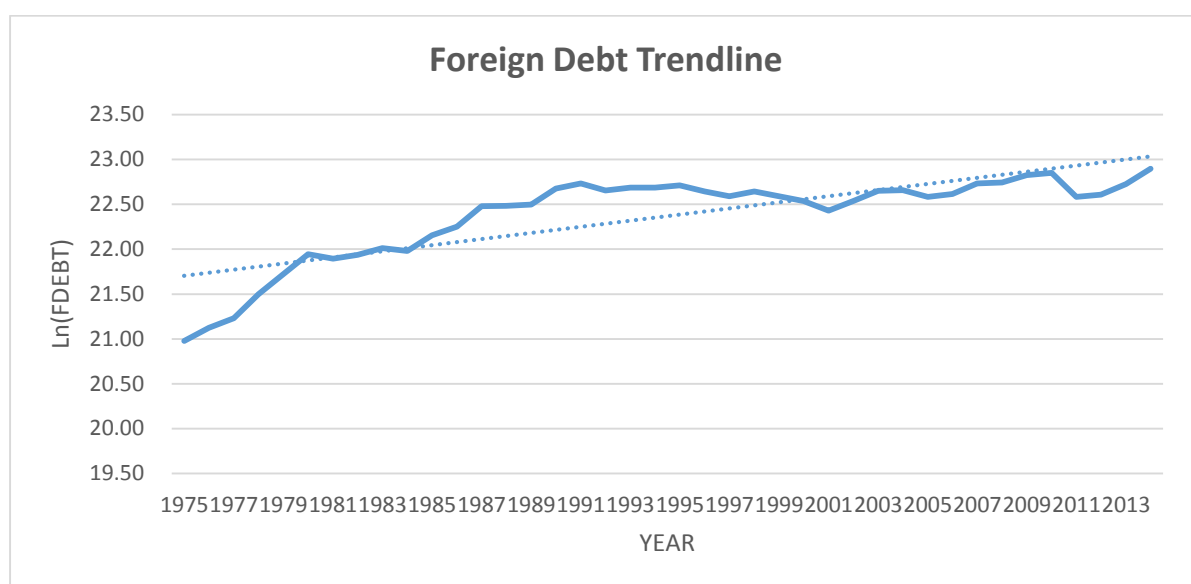
*Graph 1: Economic Growth Trendline*



Source: Research Data (2016)

Graph 2 shows the trend of foreign debt from 1975 – 2014. This is also shown in terms of natural logarithm (Ln) of foreign debt and not absolute values. As can be observed, there has also been a general rise in external debt over the period under study.

Graph 2: External Debt Trendline



Source: Research Data (2016)

Table 1: Model Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
<b>GDP</b>	40	3.2593E+09	5.3575E+10	1.5122E+10	1.2735E+10
<b>FDEBT</b>	40	1.2902E+09	8.7851E+09	5.6912E+09	2.0210E+09
<b>INFL</b>	40	1.60	46.00	12.7925	8.37035
<b>FDI</b>	40	3.9443E+05	9.4433E+08	1.0398E+08	1.8478E+08
<b>EXRATE</b>	40	7.34	88.81	46.3278	30.50346
<b>TOT</b>	40	.66	1.15	.8323	.11772
<b>INTEREST</b>	40	10.00	36.00	17.5750	6.77434

Source: Research Data (2012)

Table 1 shows the descriptive statistics on all the variables under study. It can be observed that GDP had a lowest of 3.259 billion and a high of 53.575 billion over the period under review. The mean GDP rate was 15.122 billion with a standard deviation of 12.735 billion. On the other hand, foreign debt had a low of 1.290 billion and a high of 8.785 billion. The mean foreign debt was 5.691 billion with a standard

deviation of 2.021 billion. The rest of the variables can be observed from the table.

### 4.3 The Effect of External Debt on Economic Growth

So as to determine whether the variables under study correlate, correlation analysis was run with all the variables in the model. The results of the correlation are presented in Table 2.

*Table 2: Correlations between Determinants of Economic Growth*

		GDP	FDEBT	INFL	FDI	EXRATE	TOT	INTEREST
GDP	R	1	0.606**	-0.248	0.694**	0.746**	-0.277	-0.031
	Sig. (2-tailed)		.000	.122	.000	.000	.083	.848
FDEBT	R		1	-0.021	0.394*	0.776**	-0.289	0.506**
	Sig. (2-tailed)			.900	.012	.000	.071	.001
INFL	R			1	-0.148	-0.186	0.520**	0.199
	Sig. (2-tailed)				.363	.252	.001	.218
FDI	R				1	0.402**	-0.157	-0.054
	Sig. (2-tailed)					.010	.333	.740
EXRATE	R					1	-0.319*	0.354*
	Sig. (2-tailed)						.045	.025
TOT	R						1	0.108
	Sig. (2-tailed)							.508
	N							40
INTEREST	R							1
	Sig. (2-tailed)							
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Source: Research Data (2016)

The results show that Gross Domestic Product was positively and strongly correlated with foreign debt, FDI and exchange rate while negative for inflation, terms of trade and interest rate. The correlations between the independent variables suggest a presence of serial correlations among them but the correlations were not very

connected. This being time series data, these relations are expected. The effect of external debt on GDP volatility can also be observed from Table 2. As shown, R was 0.606. This means that the R<sup>2</sup> was 0.3672. Therefore, the results show that 36.72% of the GDP volatility is attributable to foreign debt.

*Table 3: Effect of Foreign Debt on Economic Growth*

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.897 <sup>a</sup>	.804	.768	6.128E+09	.804	22.570	6	33	.000
a. Predictors: (Constant), Interest rate, FDI, TOT, INFL, EXRATE, FDEBT b. Dependent Variable: GDP.									

Source: Research Data (2016)

Table 3 shows the model fit results. The Pearson correlation, r, was 0.897 suggesting that the predictors had a high correlation on the dependent variable (GDP). The R square value of 0.804 reveals that the 80.4% of the variance in GDP is attributable to the predictors under study.

*Table 4: Significance of the Model Used in the Study*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.085E+21	6	8.48E+20	22.570	.000 <sup>b</sup>
	Residual	1.239E+21	33	3.76E+19		
	Total	6.325E+21	39			
a. Dependent Variable: GDP b. Predictors: (Constant), INTEREST, FDI, ToT, INFL, EXRATE, FDEBT						

Source: Research Data (2016)

The ANOVA results are shown in Table 4. It can be observed that the residuals sums of squares are less than the regression leading to the conclusion that the model accounts for more of variance in GDP fluctuations. The F statistic was 22.57 and was significant ( $p < .05$ ). This confirms that the independent variables (predictors) have a relationship with the dependent variable.

*Table 5: Model Coefficients on Effect of Foreign Debt on GDP.*

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-2.092E+09	9.313E+09		-.225	.824	-2.104E+10	1.686E+10
	FDEBT	1.254	.909	.199	1.379	.177	-.596	3.103
	INFL	-1.049E+08	1.438E+08	-.069	-.729	.471	-3.975E+08	1.877E+08
	FDI	25.814	6.216	.375	4.153	.000	13.167	38.461
	EXRATE	2.359E+08	5.353E+07	.565	4.408	.000	1.270E+08	3.448E+08
	ToT	9.570E+09	1.064E+10	.088	.899	.375	-1.208E+10	3.122E+10
	INTEREST	-5.780E+08	1.868E+08	-.307	-3.094	.004	-9.581E+08	-1.980E+08

a. Dependent Variable: GDP

Source: Research Data (2016)

Table 5 shows the coefficients of each of the predictors in the study. From these results, a positive and significant relationship at 1% level was observed between foreign debt and FDI, also between foreign debt and exchange rate. A significant but negative effect was observed for interest rate and at 5% level of significance. No significant effects were found for foreign debt, inflation, and terms of trade. Substituting the beta values into model 2, the model becomes:



$$\text{GDP} = -2.092\text{E}+9 + 0.199\text{FDEBT} - 0.069\text{INFL} + .375\text{FDI} + 0.565\text{EXRATE} + .088\text{TOT} - 0.307\text{INT} + 9.313\text{E}+09 \dots\dots\dots (3)$$

The foreign debt coefficient,  $\beta_1$ , was 0.199 meaning that as foreign debt increases by 1 standard deviation, GDP increases by 0.199 of a standard deviation. Given that std. dev of GDP was 15.122 billion while that for foreign debt was 5.6912 billion, it therefore means that when foreign debt rises by 5.6912 billion, GDP rises by  $(0.199 \times 5.6912)$  KES 1.1325 billion. In other words, the Kenyan economy grows by KES 1.1325 billion. More specifically, when inflation rate rises by 0.069, (the economy weakens) by  $(0.069 \times 0.127925)$  0.0088 per cent whereas when FDI rise by 0.375.

The economy grows by rise  $(.375 \times 103.98 \text{million})$  KES 38.993 million. An increase in TOT by .088 gives rise to economic growth by  $(.088 \times .008323)$  0.0007323 per cent On the other hand, when interest rates rise by one standard deviation, economic growth declines by 0.307 of a standard deviation.

#### **4.4 Discussion of Findings**

The study showed that foreign debt was not a significant predictor of GDP (t-statistics=1.379) at 5% this was significant at 17.70%. However foreign debt had a positive effect on economic growth volatility. In other words, an increase in Kenya's foreign debt was followed by a rise in economic growth. This is contrary to the study carried out by Shabbir (2013) who investigated the effect of increase in foreign debt to the economic growth in 70 developing nations. The study covered the period between 1976 and 2011. The findings of the study revealed that an increase in foreign

debt stock dampens the economic growth due to reduction in the fiscal space required to service this liability. In another study Odhiambo (2010) found an inverse linear relationship between initial loan stock and subsequent economic growth in Kenya. He also found that only very high levels of the debt-to-GDP ratio had significant negative effects on economic growth. Patillo et al (2002) who indicated that public debt causes increased uncertainty about future policy decisions with a non-positive impact on economic growth.

However, the findings agree with the Keynesian model which postulates that there is no real burden associated with public debt and it has no effect on economic growth according to (Metwally and Tamaschke, 1994). The findings of Savvides (1992) also disagree with the study findings. Savvides (1992) had established that debt-financed public expenditure invokes no contractionary force. Patillo et al (2002) investigated for a period of 29 years the relationship between total foreign debt and GDP growth rate for developing countries. The study period begun in the year 1969. The analysis output was in the form of an inverted U shaped curve indicating that relationship between foreign debt and economic growth is nonlinear. This is contrary to the findings of this study.

The study found that Inflation had a negative effect on GDP. In that an increase in inflation leads to a decrease in economic growth. The study agree with the one carried out by (Kasidi and Said, 2013) who examined the relationship between inflation and Economic growth for the period between 1990 and 2011 in Tanzania. Time-series data for the mentioned period was used. The study revealed that there was an inverse relationship between inflation and economic growth. The study also showed that there

was no co-integration between inflation and economic growth during the period of study. In another study (Fischer, 1993) identified several macroeconomic factors with impact negatively on economic growth including inflation.

FDI had a positive relationship with GDP and was significant at 1%. These results agree with similar studies carried earlier. For example, (Lee and De Gregorio, 1998) suggested that with sufficient absorptive capability in the host economy FDI plays a significant role in boosting economic expansion of any given nation. Moudatsou (2003) investigated the relationship FDI and economic growth in European Union countries for the period 1980 to 1996. The findings suggest that FDI inflows have a positive effect on economic growth both directly and indirectly through trade reinforcement.

Exchange rate had a positive relationship with GDP, according to the findings. This was also significant at the level of 1%. These findings contradict the study carried out by (Cavallo, et.al.2002) on effect of developed a model indicating that an increase in foreign currency in a country leads to weakening of the exchange rate. This results to sudden stop of capital flows hence output drop in the domestic economy leading to a decrease in economic growth.

The study found out that terms of trade had a positive effect on the economic growth but not significant. These results are in agreement with the study carried out by (Kavoussi, 1984) who concluded that the relationship is applicable to both low and middle income countries. Similar results were evidenced in study carried out by (Sachs & Warner,1995) found that in terms of real GDP growth open developing

economies performed better than closed developing economies on yearly basis. Other studies which had like results were Reinhart and Rogoff (2009), Nyamwange (2009), (Nwoke, 1990).

Interest rate was evidenced to have a negative effect on the economic growth in that an increase in interest rate leads to decrease in economic growth. This agrees with (Keynes, 1936) where he indicated that general fluctuation in interest rates affects both the business and consumer psychology. Both the business and the consumers will reduce their spending when interest rates are rising and vice versa. This cause earnings to fall and stock prices to drop. This could be true because increase in interest rates leads increased cost of a debt.

#### **4.5 Summary of Findings**

The results showed a general upward trend for both the GDP and foreign debt from 1975 – 2014. The descriptive results revealed that GDP had a mean of 15.12 billion while foreign debt had a mean of 5.69 billion over the period under study. The correlation matrix revealed that external debt and exchange rate were positively. The model fit test revealed that the model accounted for 80.4% of the variance in GDP. The ANOVA results further confirmed that the independent variables had a relationship with the dependent variable as the F statistic of 60.6 was significant ( $p < 0.05$ ).

Further, 36.72% of the volatility in GDP is attributable to foreign debt. From the coefficients of the independent variables, it was noted that FDEBT was positively related to GDP but not significant at 1% level of significance. Another independent

variable which had a similar result was ToT. FDI and Exchange Rate revealed positive relationship with GDP, these were significant at 1% level of significance. Inflation revealed a negative relationship with GDP but not significant at 1% level. Results indicated Interest rate was negatively related to GDP and significant at 1% level of significance.

## CHAPTER FIVE

### SUMMARY AND CONCLUSION

#### 5.1 Introduction

This chapter presents the summary of the study in section 5.2, conclusions of the study in section 5.3, limitations of the study in section 5.4, and suggestions for future research in section 5.5.

#### 5.2 Summary of the Study

The study sought to assess empirically the effect of Kenya's foreign debt on economic growth. A number of theories on the effect of foreign debt on economic growth were reviewed including Keynesian Model, Debt Overhang Theory and Buchanan Theory. A number of factors influencing economic growth were also reviewed from various studies. Finally, studies on the relationship between foreign debt and economic growth were reviewed.

A correlation design was used in this study. Secondary data from 1975 to 2014 was collected on nine variables in the model from the World Bank Website, the Central Bank of Kenya, and the Kenya National Bureau of Statistics. The seven variables were economic growth (dependent variable), foreign debt, inflation rate, interest rate, GDP, terms of trade and FDI. The SPSS was used to perform descriptive, correlation, and regression analyses. Data was also checked for validity and reliability. The results showed that there was a general upward trend for both the economic growth and foreign debt from 1975 – 2014. The descriptive results revealed that economic growth had a mean of 15.122 billion while foreign debt had a mean of 5.691 billion over the period under study.

The correlation matrix revealed that Economic growth and foreign debt were positively correlated. The model fit test revealed that the model accounted for 80.4% of the variance in economic growth. The analysis of variance confirmed that the independent variables had a relationship with the dependent variable as the F statistic of 22.57 was significant ( $p < 0.05$ ). From the coefficients of the independent variables, it was noted that economic growth was positively influenced by foreign debt. Other determinants of economic growth that had positive effect were Exchange Rate, Terms of Trade and FDI. Independent variables that revealed negative relationship with economic growth were inflation and interest rate.

### **5.3 Conclusion**

The study concludes that changes economic growth in Kenya is partly influenced by the level of external debt. The study also explains that there are many factors that affect economic growth in Kenya such as the ones incorporated in the study as control variables. Foreign debt can be good as long as it is well applied in productive investments in a country. This is much consistent with the Keynesian model and a number of empirical studies carried out such as; (Driskas & Adamopolos, 2006), Kasidi & Said, 2013), (Shabir, 2013) who noted that controlled foreign debt led to economic growth in developing countries.

### **5.4 Limitations of the Study**

This study solely focused on Kenya, this limits the applicability of the results outside this sample. It would be important if cross-country analysis would be taken but given a number of resource limitations, the present study could not go beyond this sample.

Secondly, the main focus of this study was limited to the relationship between economic growth and foreign debt. Other determinants of economic growth were also incorporated into the study as control variables. While there was a good attempt at exploring other factors which influence economic growth other than foreign debt, it cannot be claimed that the factors used in this study are exhaustive. Thus there are other factors which were left out of this study hence the model used may be limited in this respect.

### **5.5 Suggestions for Further Research**

This study was aimed at establishing the effect of foreign debt on economic growth in Kenya. It would be important for more rigorous analyses to be performed in the future probably by increasing the study period in order to establish whether these results hold. Another study needs to be carried out on the effect of foreign debt on economic growth with a large sample of countries especially in Africa since majority of the countries in Africa are net borrowers. With the inclusion of other factors other than the ones used in this study, it will be possible to establish the determinants of economic growth in Africa.



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## APPENDICES

### Appendix 1: Research Data

COUNTRY	YEAR	GDP	FDEBT	INFL	FDI	EXRATE	TOT	INTEREST
Kenya	1975	3,259,346,415	1,290,223,000	19.10	17,158,747	7.34	0.86	10.00
Kenya	1976	3,474,544,468	1,493,329,000	11.40	46,371,851	8.37	1.02	10.00
Kenya	1977	4,494,379,307	1,658,884,000	14.80	56,545,226	8.28	1.11	10.00
Kenya	1978	5,303,737,169	2,173,736,000	16.90	34,414,130	7.73	0.75	10.00
Kenya	1979	6,234,390,279	2,720,996,000	8.00	84,009,903	7.48	0.81	10.00
Kenya	1980	7,265,312,883	3,386,807,000	13.90	78,973,746	7.42	0.82	11.00
Kenya	1981	6,854,490,191	3,228,163,000	11.60	14,147,557	9.05	0.90	12.00
Kenya	1982	6,431,594,078	3,367,820,000	20.70	13,000,895	10.92	0.84	15.00
Kenya	1983	5,979,205,950	3,628,281,000	11.40	23,738,843	13.31	0.92	16.00
Kenya	1984	6,191,426,332	3,511,512,000	10.30	10,753,527	14.41	0.83	14.00
Kenya	1985	6,135,040,561	4,180,581,000	13.00	28,845,949	16.43	0.84	14.00
Kenya	1986	7,239,145,307	4,602,807,000	2.50	32,725,777	16.23	0.86	14.00

COUNTRY	YEAR	GDP	FDEBT	INFL	FDI	EXRATE	TOT	INTEREST
Kenya	1986	7,239,145,307	4,602,807,000	2.50	32,725,777	16.23	0.86	14.00
Kenya	1987	7,970,816,494	5,782,937,000	8.60	39,381,344	16.45	0.81	14.00
Kenya	1988	8,355,380,879	5,808,995,000	12.30	394,431	17.75	0.81	15.00
Kenya	1989	8,271,729,986	5,888,725,000	13.80	62,189,917	20.57	0.76	17.00
Kenya	1990	8,590,574,252	7,055,136,000	17.80	57,081,096	22.91	0.82	19.00
Kenya	1991	8,152,105,054	7,453,132,000	20.10	18,830,977	27.51	0.95	19.00
Kenya	1992	8,220,718,083	6,897,911,000	27.30	6,363,133	32.22	0.98	21.00
Kenya	1993	5,751,786,610	7,111,365,000	46.00	145,655,517	58.00	1.15	30.00
Kenya	1994	7,148,143,144	7,124,215,000	28.80	7,432,413	56.05	1.08	36.00
Kenya	1995	9,046,331,923	7,309,044,000	1.60	42,289,248	51.43	0.83	29.00
Kenya	1996	12,045,836,992	6,813,620,000	8.90	108,672,932	57.11	0.78	34.00
Kenya	1997	13,115,729,422	6,465,076,000	11.40	62,096,810	58.73	0.72	30.00
Kenya	1998	14,093,228,425	6,823,973,000	6.70	26,548,246	60.37	0.70	29.00
Kenya	1999	12,896,050,252	6,474,842,000	5.70	51,953,456	70.33	0.76	22.00
Kenya	2000	12,691,278,914	6,140,753,000	10.00	110,904,550	76.18	0.68	22.00



<b>COUNTRY</b>	<b>YEAR</b>	<b>GDP</b>	<b>FDEBT</b>	<b>INFL</b>	<b>FDI</b>	<b>EXRATE</b>	<b>TOT</b>	<b>INTEREST</b>
Kenya	2001	12,986,519,857	5,515,448,000	5.70	5,302,623	78.56	0.69	20.00
Kenya	2002	13,149,263,399	6,122,458,000	2.00	27,618,447	78.75	0.82	18.00
Kenya	2003	14,903,634,448	6,862,989,000	9.80	81,738,243	75.94	0.80	17.00
Kenya	2004	16,096,109,637	6,916,331,000	11.60	46,063,931	79.17	0.81	13.00
Kenya	2005	18,737,895,401	6,427,522,000	10.30	21,211,685	75.55	0.79	13.00
Kenya	2006	22,502,291,403	6,622,076,000	14.50	50,674,725	72.10	0.73	14.00
Kenya	2007	27,236,739,896	7,461,880,000	9.80	729,044,146	67.32	0.71	13.00
Kenya	2008	30,519,165,009	7,548,944,000	26.20	95,585,680	69.18	0.66	14.00
Kenya	2009	30,580,367,979	8,181,960,000	9.20	116,257,609	77.35	0.66	15.00
Kenya	2010	32,198,151,217	8,400,360,000	4.00	185,793,190	79.23	0.73	14.00
Kenya	2011	37,258,841,183	6,411,762,000	14.00	139,862,100	88.81	0.92	15.00
Kenya	2012	42,611,708,248	6,588,170,000	9.40	163,410,200	84.53	0.92	20.00
Kenya	2013	47,306,413,572	7,408,746,000	5.70	371,846,700	86.12	0.88	17.00
Kenya	2014	53,575,379,592	8,785,103,000	6.90	944,327,300	87.92	0.77	17.00