



**EFFECTS OF EUROBONDS AND EXTENAL  
DEBT ON ECONOMIC GROWTH IN ZAMBIA**

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## **DEDICATION**

This paper is dedicated to my mother, Agnes Mpundu.

## LIST OF ACRONYMS

OLS:	OEDINARY LEAST SQUARES
WB:	WORLD BANK
LIC:	LOW INCOME COUNTRIES
LDC:	LESS DEVELOPED COUNTRIES
GDP:	GROSS DOMESTIC PRODUCT
ADF:	AUGMENTED DICKY-FULLER
BOZ:	BANK OF ZAMBIA
IMF:	INTERNATIONAL MONETARY FUND
MOF:	MINISTRY OF FINANCE

## ABSTRACT

*External debt and its sustainability has been a topic of discussion among various governments and international institutions like international monetary fund. Many African countries borrow because of high fiscal deficit and investment gap, these countries have low domestic savings hence to meet their investment gap and fiscal deficit they borrow externally. Zambia has issued three Eurobonds in the period of four years, this paper studies the effect external debt has on economic growth using ordinary least squares, it also captures the citizens' reaction to the utilization of the funds which was done through a survey and lastly several debt sustainability papers were reviewed to check for pragmatic strategies of debt management. The outcome show a significant negative relationship between high external debt and economic growth. The survey captured that there was misappropriation of funds on the part of the government and a dissatisfaction of debt utilization was expressed by the captured citizens and the debt sustainability paper did reveal need to consolidate fiscal policies and efficient use of the borrowed resources.*

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

Public debt especially in low income countries is something that has caught the attention of policy makers, international organizations like IMF and World Bank, investors both local and foreign. According to the Keynesian economists, investment comes from savings but most African countries, Zambia inclusive have very low domestic savings which cannot meet the investment needs, for this gap to be breached the government sources out for resources externally to meet its investment needs or to balance the budget deficit.

External debt defined as resources or finances that is owed to foreign nations further a paper by Muinga explains it as, “External Public Debt is debt owed to external creditors which are multilateral creditors such as African Development Bank, World Bank, International Monetary Fund and bilateral creditors who are essentially governments of other countries and commercial creditors.” External debt is one of the main receipt and a huge capital accumulation financier in any economy, (Adepoju et al, and 2007). It is basically viewed as a tool to carry out capital projects and to reduce high fiscal deficits for the betterment of the citizens and to help promote economic growth. External debt kept below the threshold boosts the economy which will in turn enhance the GDP while high indebtedness is associated with negative effects, Audu says that excessive indebtedness is a major impediment for economic growth and stability, (Winifred, 2014). This is due the issue of debt servicing because debt is serviced at higher price than the actual amount that was borrowed. (Fosu, 2012) asserts that debt servicing shifts spending from health, education and the social sector” obscuring the initial intent for debt acquisition to boost

economic growth and development because now the country has to shift the resources meant for development to pay the high interest.

Zambia with low savings and high need for infrastructural development, the status of low middle income country which comes with reduced concessional funding, the government decided to plunge into international financial markets to source for resources to pay for the urgent infrastructural needs.

It attained the status of lower middle income country from being a highly indebted poor country, this was after the long term outstanding debts were cleared off by the international monetary fund in the year 2006, this action alone saw many countries in Southern Sahara almost debt free for the first time in history.

Zambia with a very low government debt in history decided to delve into the international markets, which was a no go zone in the past and the first Eurobond was issued in 2013. The word Eurobond has diverse meaning though in this paper it was confined to mean, “bonds that are sold in countries other than the country of the currency denominating the bonds (Jeff 2008).” Eurobonds are not necessarily denoted in Euros, looking at the case of Zambia all three bonds were United States dollar denominated.

The term Eurobond is defined by Zipar as Sovereign bonds are a form of debt security issued by a national Government within a given country. Often referred to as Eurobonds, they are denominated in a foreign currency (usually the United States dollar, rather than, as its name would suggest, the Euro).

1963 has been accepted as being the beginning of Eurobond market, which began with US\$15m, with 15 year maturity Autos trade issue for the Italian motorway network believed to have happened around July.

Today the market has made great strides, the market celebrated 50 years in 2013, and African countries have started to tread these waters.

Eurobonds also known as foreign/sovereign bond is a concept that is old but only got introduced in Southern Africa in the early 2000 and South Africa being the first southern African country to issue out foreign bonds.

Zambia has currently issued three Eurobonds in 4 years the first one was issued in 2012, this was a worth \$750 million at a coupon rate of 5.375%, the issuance was meant to finance infrastructural needs in various sectors (ministry of finance, 2012)

And the second Eurobond was also a bullet Eurobond with a ten year maturity, this bond was valued at \$1bn in 2014, with the recent \$1.25bn which brings the total Eurobond debt to \$3bn. The second bond followed soon afterwards in the year 2014, this was \$1billion debt with a coupon rate of 8.5% still oversubscribed though issued at a higher interest rate and it also comes with 10 year maturity.

The most recent bond was issued in the early months of 2015, \$1.25 billion at 8.98% a rate higher than the first issue which indicate the economic risk the country is perceived to carry. And the argument that the Zambian government has presented for seeking debt is that they are cheaper than domestic financing and offer a longer maturity period. Zambia Eurobond debt is standing at \$3 billion united state dollars. The maturity for all the three bonds are within the space of four years, 2022-2026, this will see Zambia pay close to \$6 billion (principal +interest) to service this debt.

<b>Eurobonds issued</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>750,000,000</b>	<b>83,333,333</b>	<b>83,333,333</b>	<b>83,333,333</b>	<b>83,333,333</b>
<b>1,000,000,000</b>			<b>111,111,111</b>	<b>111,111,111</b>
<b>1,250,000,000</b>				<b>125,841,751</b>
<b>Sinking fund \$</b>	<b>83,333,333</b>	<b>83,333,333</b>	<b>194,444,444</b>	<b>320,286,195</b>

Public debt (external and domestic) management is critical in every economy more so to developing economies. This paper focused on external debt and Eurobonds and their effect on economic growth.

Considering that Zambia's economic diversity is still in infancy and it is still heavily dependent on the mining sector to finance most of its expenditure, any shift in the copper market has direct impact to the economy. This paper highlights the need to have effective debt management strategies, the effect high levels of external debt has on economic growth and lastly the views of the general populous on the Eurobonds is taken into consideration.

## 1.2 Problem statement

“The recent global depression and the resulting increase in fiscal deficit has generated renewed interest in domestic as well as external debt sustainability issue of the highly indebted developed and developing countries. To deal with recessionary phase most governments have been following counter cyclical fiscal policies by giving large fiscal stimulus to their economies. This has, however, led to increased budget deficits and worsening of the debt sustainability indicators.” (Tahir, 2012)

In a study (Rasmussen 2015) says that economic slowdown and depreciation of the kwacha would make it hard for Zambia to service its debt and pay the principal when the maturity time is reached. The need of developing more effective debt management strategies has long been recognized, according to a statement by bank of Zambia, “The need for enhanced management of Zambia's debt has become even more critical following the attainment of Lower Middle Income status, which limits the scope of sources of concessional loans and exposes the country to more commercial loans, (BoZ 2015) however the public debt in Zambia is still plagued by many hazardous economic implication and poor utilization of funds that are received, (Zipar, 2015)says that concerns about whether Eurobonds are being spent in a way which will promote growth were confirmed in the 2013 Auditor General's report. Some of the issues highlighted by the report include misapplication of funds, lack of receipt and disposal details, delayed and irregular disbursements of funds. Even though most of the selected projects are high-value and can potentially boost economic growth, the future economic benefits are likely to be delayed, thereby increasing the risk that Zambia will struggle to repay its debts between 2022 and 2026. The need for effective debt strategies cannot be over emphasized if a default is to be avoided and

if the economy and the Zambians citizens are to benefit from this move, it is inevitable for effective debt management strategies to be put in place.

Zambia is currently experiencing economic turmoil, a reduction in GDP growth, high inflation rate, depreciating currency and falling copper prices. This puts pressure on the government to service its debt because the three Eurobonds are quoted in US\$, the recent depreciation of the kwacha against the dollar, increases the interest paid annually. The question that every stakeholder is asking is, is this debt sustainable, in case of a default, what are the welfare and economic costs?

Mid 2000 marks as the period when African countries (exclusive of South Africa) plunged into the international market to issue Eurobonds, this is attributed to global economic recession and a reduction in concessional loans, to finance their fiscal deficit and boost economic growth.

The year 2012 marks Zambia's first issuance of a debt valued at \$750 million at a coupon rate of 5.3%, this was followed by two other Eurobonds of \$1 billion and \$1.25billion issued in 2014 and 2016 respectively which amounts to \$3 billion which accounts for over 40% of external debt.



Many studies have been conducted on debt sustainability in foreign countries but very little research has been undertaken by the *Zambian* government. This report focuses to check for the effect of external debt a regression analysis will be carried out, lastly a random sampling survey will be conducted among the general populous to check to capture their opinion on the utilization of the Eurobond.

## **1.4 Purpose of study**

### **1.4.1 General objective**

The research focuses at establishing the need of effective debt management strategies and to highlight the effect debt defaulting has on an emerging economy.

### **1.4.2 Specific objectives**

- To explore the most pragmatic approach to external deb management in Zambia
- To investigate the reactions of citizens to the utilization of Eurobonds
- To explain the link between government external debt and economic growth
- To enumerate what would happen in the face of a default

## **1.5 Research questions**

This research focuses on highlighting the need of effective debt management strategies and tries to answer the following questions

1. What is the most pragmatic approach to Zambia's debt?
2. How do the citizen feel about utilization of Eurobonds?
3. What relationship is there between high external sovereign debt and economic growth?
4. What are the risks of a default?

## 1.6 Research hypothesis

The hypothesis to be used is

### HYPOTHESIS

$H_0$  = there is no significant relationship between External debts and economic growth in Zambia

$H_1$  = there is significant relationship between External debt and economic growth in Zambia

## 1.7 Scope of study

This research seeks to see the effect external debt has on economic growth. To fully assess the effect, the research will utilize time series data from 1981 – 2014 because this period shows pre and post debt relief.

## 1.8 Research variables

A variable is a characteristic under study that assumes different values for different elements (Mann, 2010). Both qualitative and quantitative variables will be used in this research.

- People's reactions to the utilizations of the bond
- Effect of external debt on economic growth in a developing economy

### Data measurements

VARIABLE	DESCRIPTION	SOURCE/MEASUREMENT
RGDP	Real gross domestic product us\$	WBD
TED	Total external debt	WBD
EBP	Debt service payment current us\$	MOF
EXR	Official exchange rate at Lcu per us\$	MOF

*SOURCE: author's compilation*



## 1.9 Significance of study

There has been no definitive study in Zambia on Eurobonds and the implications posed to economic growth and country's reputation in a case of a default. Secondly there is no study on the citizens' reaction. Thirdly there has been neglect on the sustainability of these Eurobonds and how there is a link with external debt and economic growth because a default would reduce foreign investment and country would lose its reputation and would have problems accessing debt from institutions and other countries. This would slow down economic growth.

Plus this study would aid policy maker form sustainable debt policies

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This section highlights the studies that were conducted on external debt globally, the studies that are not specifically limited to Eurobonds but those that encompass studies of external debt generally, are reviewed that have used different methodologies and have arrived at differing conclusions.

#### 2.2 Conceptual and definition review

External debt is defined by Arnone *et al* (2005) as that portion of a country's debt that is acquired from foreign sources such as foreign corporations, government or financial institutions. The borrowing is necessitated by the investment gap by the borrowing nation.

Winifred (2014) says that Debt crisis occurs when a country has accumulated a huge amount of debt such that it can no longer effectively manage the debt which leads to several mishaps in the domestic political economy (Adejuwon *et al*). Mimiko (1997) defined debt crisis as a situation

whereby a nation is severely indebted to external sources and is unable to repay the principal of the debt. "Huge external debt does not necessarily imply a slow economic growth; it is a nation's inability to meet its debt service payments fueled by inadequate knowledge on the nature, structure and magnitude of the debt in question" (Were, 2011). This quotes the need of Public debt management which is defined as the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk. It should also meet any other public debt management goals the government may have set, such as developing and maintaining an efficient market for government securities (IMF, 2014)

## **2.3 Theoretical and empirical review**

### **2.3.1 Theoretical review**

According to Keynesian's growth theory (1936) says that economic growth is determined by the rate of saving and investment. Keynes suggests that if the country's savings are low, to finance its investments and expenditures, it has to seek for finances externally. This theory is applicable to the study because countries with external debt stocks will focus on trying to repay the debt rather than concentrate on investment which has impact on economic growth (Muinga, 2014) this theory is also supported by the founder of modern economics, Adam Smith, who acknowledged that savings, used for capital formation, is an important economic growth factor.

Winifred (2014) suggests that in the saving and investment gap or the dual-gap theory provides reason for sourcing resources externally, he further states that this analysis shows a map that indicates economic growth of any state is a result of investment.

Krugman (1982) explains that debt overhang effects refers to a case when the state's debt stock is greater than its ability to repay the debt or when debt repayment exceed the benefits from the debt.

Cohen (1993) observes another effect of high debt which is known as crowding-out effect, this represents a case where revenue acquired from foreign exchange is used up in debt service limiting the resources from being domestically invested.

Winifred (2014) also introduces the dependency stating that this theory lists the factors that add to the growth of underdeveloped states with the assumption that resources flow from periphery to the core meaning from the poor nations to enrich the developed states. The theory further suggests that this can be attributed to internally afflicted condition stemming from low levels of technology, corruption, mismanagement etc.

The neoclassical economists Solow (1956) and Swan (1956) show a relationship of labour, output, output and investment, assuming that countries utilize their resources efficiently, that there is a diminishing return to capital and that labour increases. Under this theory, Muinga (2014) adds that the Solow model economic growth is determined by capital, labour and technology. The theory also embodies the debt overhang and crowding-out effect in the sense that it suggests that if earnings from increased productivity goes to foreign creditors not domestic agents, then motivation to increase productivity will be minimal.

### **2.3.2 Empirical review**

Globally, we see countries like Greece and that are still facing economic instability, Greece once a soaring economy but according to Wikipedia, it is now plunged in debt, this depression was triggered by structural weaknesses in the Greek economy and the revelation that previous data on government debt levels and deficits had been undercounted, (Acropolis;2010)

A number of studies have investigated public debt sustainability, one of such is a study by (Tahir et al,2012) using the PVBC approach to debt sustainability carried out on Pakistan using time series data from 1971-2011 which revealed that debt levels were unsustainable and to resolve this long term debt sustainability has to be considered and the recommendations given were increase in revenue and exports and heightened fiscal discipline to ensure efficient use of resources, a reduction in debt stock, a need for enhanced resource mobilization.

A paper by (EL-Mahdy et al 2009) titled debt sustainability and economic growth in Egypt highlights the strong and negative impact of public debt on growth.

Another report by (Tahir 2009) that used traditional debt indicators approach Gary (1998) the approach of debt sustainability analysis expresses the debt stock and debt servicing as a ratio of selected macroeconomic indicators, they further state that the determination of debt sustainability levels, the debt ratios are concerned with the benchmark threshold debt sustainability indicators recognized by international organizations. Mostly the ratios of public debt stock to GDP is used but a more accurate indicator would be ratios of public debt to government revenue as this shows a more accurate debt burden that has to be managed, this approach also highlights how essential fiscal policies and reforms on debt sustainability are.

In the case of external debt, Tahir highlights the need to not only use external debt to GDP but to utilize external debts in terms of foreign exchange earnings and exports of goods and services because they mirror the capabilities to manage external sector indicators and highlight reforms on external debt to foreign exchange earnings and export ratios.

In the study on external debt Tahir (2009), uses balance of payment identity to derive the external debt sustainability conditions. This report shows that Pakistan's debt is above the threshold and is unsustainable.

A paper by (musebu 2012) urge that high external debt can erode confidence in economic reforms, the author recommends the need for diversification in other growth methods using savings and increasing the export base.

Kemel(2001) in a working paper titled debt accumulation and its implications for growth concludes that good national policies are essential to economic growth, he also states that there is need for close monitoring on the sage of the debt acquired.

Another study by world outlook (2003) opined that high debt can have a negative effect on economic growth, the paper also highlights the high costs of defaulting on the debt.

Panizza(2008) states that the choice of the optimal debt structure involves important trade-offs and, as weakness with the current system are often identified after a financial crisis starts to unravel (Krugman, 2006), policymakers should be aware of possible new vulnerabilities. Hence, crisis prevention requires detailed and prompt information on debt structure. Yet, most research and analysis focuses on external borrowing and prompt and detailed information on the level and composition of domestic public debt is often not available to policymakers and analysts

Winifred(2014) in a research paper explain the reason low income countries borrow from external sources, he investigates the impact external debt has on economic growth in Nigeria using Co-integration analysis using the Augmented Dickey Fuller (ADF) unit root test, Johansen Co-integration and Vector Error Correction techniques of estimation which provides coefficient estimates of the time-series data used in analysis. It also carries out a causality test using Granger Causality test to check for a causal relationship between external debt and economic growth in Nigeria which revealed a significant long run relationship between real GDP and debt service payments. He recommends that debt should be solely contracted on economic grounds not political basis, he further says that need to increase exports.

An extract from his paper explains the crowding out theory, “Cohen (1993) and Clement *et al* (2003) observe that aside from the effect of high debt stock on investment, external debt can also affect growth through accumulated debt service payments which are likely to “crowd out” investment (private or public) in the economy. The crowding-out effect refers to a situation whereby a nation’s revenue which is obtained from foreign exchange earnings is used to pay up debt service payments. This limits the resources available for use for the domestic economy as most of it is soaked up by external debt service burden which reduces the level of investment. Tayo (1993)” this another impediment of external financing, proceeds from the investment are eroded away by debt servicing.

A working paper by (Nalishebo et al 2015) highlight the need to consolidate fiscal policies, the paper indicates Zambia’s credit rating is currently not in investment grade but rather in speculative grade which carries high risks. The uses the three credit ratings namely: “Moody’s Investors Service, Standard & Poor’s and Fitch Ratings. The ratings assigned by these

international credit watchdogs are adjusted depending on their perceived credit worthiness of a country. The ratings also take into account overall economic environment and political conditions. Investors often consider credit ratings when evaluating the general investment climate of a country.” (Nalishebo, 2015)

Ghana’s MTDMS for 2015- 2017 suggest a number of strategies for debt sustainability, Government intends to diversify its funding sources and lengthen the maturity profile of the debt portfolio. Government intends to issue a Eurobond in 2015, proceeds of which will be used to finance the buy-back of the 2017 Eurobond, maturing domestic debt and capital expenditure. The plan is to take steps to induce increased participation in domestic debt markets by resident and non-resident investors, including a possible opening of the 2-year bonds to non-resident investors. The strategy is based on the assumption that non-resident investors are expected to rollover their holdings of government bonds. It also envisages issuing inflation-linked bonds in 2017 targeted at pension funds and insurance companies (Ghana’s MTDS 2015)

Another State to develop Medium term debt strategy is Pakistan, the strategy paper highlights the importance to effectively manage sovereign debt. “Unsustainable level of debt coupled with absence of prudent debt management strategy plagues economic growth by lowering the development expenditure due to heavy debt servicing requirement. This intricate scenario calls for comprehensive and prudent debt management strategy which ensures the right choices among several options keeping in view cost and risk tradeoffs, addresses financial constraints and ensures intergenerational welfare impact.” (Pakistan MTDS, 2014)

## **2.4 LITERATURE REVIEW SUMMARY**

Both theoretical and empirical put emphasis on debt management, regardless of the source of debt, a proper strategy to service the debt is impetus. Another thing that has been acknowledged is the need to finance the fiscal deficit in many low income countries, and how certain levels of debt can in fact boost economic activities and help with poverty reduction. The only impediment comes into play when the borrower fails to pay or service its debt, failing to service the debt has been attributed to a number of issues such as unconsolidated fiscal discipline, inefficient

utilization of the sourced finance, or using the finances in consumption expenditure not projects that would help the economy, falling prices of copper or oil since most African states rely on one oil or copper in the case of Zambia, copper make up 70% of the exports this implies that a reduction in copper prices has an adverse effect on the revenue of the country, an example would be Venezuela which relies on the tourism sector and a slowdown in this industry saw the state default on its debt, other causes according to Winifred (2014) says that poor debt management is one the reason the Nigerian government has failed to meets its debt obligations. “Debt sustainability and debt management Nigeria has performed poorly. The lack of understanding of the nature, structure and magnitude of external debt has not allowed for the Nigerian economy to effectively meet her debt service obligations and manage the debt stock appropriately.” (Winifred 2014), he further attributes the causes of debt burden to adverse interest rates and exchange rates movements.

This only puts the spotlight on debt management especially in developing countries like Zambia, there is need to consolidate the fiscal policies and put up strategies that will help alleviate the high debt burden on developing countries in Africa.

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This study aims at highlighting the urgent need to invest in effective debt management, the secondary reasons are to highlight the effect high external debt has on economic growth, and people's view of the state's utilization of the Eurobonds. This chapter consists of the research methodology which illustrate the investigations conducted. Model with dependent and independent variables is specified, Techniques of estimation, methods of data analysis are explained in this chapter.

#### 3.2 Theoretical framework

The need to borrow cannot be ignored especially in low income countries with low savings and high investment gaps, the problem only comes in when the state is unable to service its debt, the international institutions have set threshold for sustainable levels of debt for developing countries, this study will use traditional threshold approach to assess if Eurobond debt is sustainable. Ratios of debt to GDP was used. For more accurate results, the debt ratio to government revenue was used to establish the real debt burden the government has. Ratio of debt service payment to exports was used because exports shows a countries ability to service its debt.

the dual gap theory that basically highlights that for development to happen it is influenced by investment and considering that most low income countries have low savings there is need to borrow abroad to consolidate the investment gap. Winifred (2014) says that the dual- gap framework is coined from a national income accounting identity which states that excess investment expenditure over domestic savings is equivalent to the surplus of imports over exports. Thus at equilibrium the following identities hold

$$I - S$$

$$M - E$$

$$I - S = M - E$$



Where:

I = investment

E= exports

M = imports

S = savings

The dual gap theory explains that  $(I - S) = (M - E)$  and excess import over exports indicates that the economy is expending more resources than it is generating.

### 3.3 Research methodology

To determine the impact of high external debt on economic growth, regression analysis will be conducted using ordinary least squares (OLS). For citizen's view on how the government has utilized the previous Eurobond, a survey was carried using random sampling of 40 participants who completed questionnaires. The data collected was analyzed using excel and papers will be reviewed on debt sustainability.

### 3.4 Model specification

This aims to highlight the effect external debt has on economic growth, the model is adopted from Winifred (2014), and all data was critically checked for accuracy. The model depicts a small open economy

Its functional form is

$$GDP = f(TDS, EXCR, EXT)$$

The model employed in the following study

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + U$$

That is

$$Y = B_0 + B_1TDS + B_2EXCR + B_3EXT + U$$

Where

Gdp = real gross domestic product

TDS= debt service payment

EXCR= exchange rate

EXT= external debt

U= stochastic term

*B<sub>1</sub>B<sub>2</sub>B<sub>3</sub> is the slope of the regression equation*

Real Gdp shows an inflation adjusted measure that reflects the value of all the goods and services produced by an economy in a given year

External debt is the total debt a country owes to foreign creditors including government, corporations or citizens of a foreign country. The prior expectation is negative relationship between high debt and economic growth. High levels of debt offset economic growth

Exchange rate is the price of a nation's currency in terms of another currency. A prior positive relationship because an appreciation in the local currency would translate in economic growth.

Debt service payment is the value used to repay the debt. This variable has been used because it highlights the nation's debt burden. The prior expectation is that there is a negative relationship between debt service payment and economic growth.

### **3.5 Techniques of estimation**

Time series data from 1991 to 2016 covering 26 years which will be estimated using ordinary least squares to depict a relationship between high debt and economic growth. Since we are using time series data we carried an augmented Dicky-fuller (ADF) to test for stationarity and to avoid autocorrelation which gives biased estimates. The following tests were carried out to establish suitability of data in the use of ordinary least squares (OLS) regression.

#### **3.5.1 stationary test**

The parameters such as the mean and variance need to be independent of time then the series is said to be stationary. If the covariance between two periods only depends on distance and not time then the series is stationary. Non- stationary series lead to erroneous result. To test for stationarity augmented dickey- fuller (ADF) will be carried out.

## 3.5.2 Heteroskedasticity test

A lack of constant variance among all observation is considered to be violation of OLS requirement or is called heteroskedasticity. Measuring heterogeneous time series data would produce biased standard errors which would have an effect on inference. Heteroskedasticity test was carried out using Cook-Weisberg test.

## 3.5.3 Correlation test

One of the OLS requirements states that there should be no relationship between the independent variables. To test for correlation a Breusch- Godfrey LM was carried out to test serial correlation. The null hypothesis is that there is no serial correlation between the independent variables, accepting this null hypothesis means that the variables are non-stationary while reject it would imply the presence of stationarity.

## 3.5.4 Multi collinearity test

This test is done to determine if a relationship exists between the explanatory variables. A correlation matrix is used to estimate the relationship between the independent variables.

## 3.6 data sources, definitions and measurements

### 3.6.1 Data sources

The data was collected from World Bank, ministry of finance and other reliable internet sources

### 3.6.2 Data definitions

#### 1. Signs and magnitude of the parameter (+ or -)

These signs are a prior condition set by economic theory and usually refers to signs and size of parameters of economic relationship, (Winifred, 2014) these signs ought to conform to the theory if not they are rejected unless it can be shown that the theory is not applicable

#### 2. Determinants of coefficients ( $R^2$ )

This shows the percentage of variation of dependent variable that can be explained by the independent variables. Basically what  $R^2$  shows is much of the dependent variable is explained by the independent variables. It shows the goodness of the fit the farther from zero a model is the better the fit if the model shows less than 50% then the model is not a good one.

#### 3. Adjusted ( $R^2$ )

This is an addition of the  $R^2$  in that this one takes into consideration the number of observation thus produces more accurate results. It gives a better measure of the goodness of the fit, the closer to 1 the better the model.

#### 4. F-statistics

Explains whether the regression as a whole is performing better than any random predictors

## 5. t-test

Value of the t-statistics for testing whether the corresponding regression coefficient is different from zero. It tests for the statistical significance of the parameter in the model.

## 6. Standard error

Standard error is the deviation of the sampling distribution of the estimates of the coefficients under the standard regression

### 3.6.3 Data measurements

Variable	Description	Source	Measurement
Rgdp	Real gross domestic product at constant us\$, 2005	World bank (2016) and ministry of finance	us dollar
Ext	External debt	World bank (2016) and ministry of finance	us dollar
Tds	Total debt service payment	World bank and ministry of finance	us dollar
Excr	Exchange rate	Bank of Zambia	K/us dollar

Author's computation

## CHAPTER FOUR

### DATA ANALYSIS AND INTERPRETATION

#### 4.1 Introduction

This chapter presents the survey results starting with background parameters then descriptive statistics for the survey. Furthermore this chapter presents the descriptive statistics and results of ordinary least squares regression results. The quality of data has been ascertained by the use of diagnostic tests discussed in the previous chapter.

Data presentation, estimates and results are presented, the long run relationship between external debt and economic growth is also presented.

#### 4.2 Survey background study

The findings indicate that 74 percent of the respondents were aged between 20 – 29 years, 17.5 percent were 30-40 years, 5 percent were 41 – 50 years and 5 percent were 51- 60 years respectively. Majority of respondents were females amounting to 52.5 percent while the 47.5 percent were males.

Marital status of the respondents was distributed as follows; 25 percent married and 75 percent single. The most common source of information was found to be internet at 37.5 percent, news was 15 percent, social media 12.5 percent, friends 15 percent and 20 percent for books. Majority of the respondents (55 percent) had university education, college 27.5 percent, secondary education 12.5 percent, 0.0 percent for junior secondary and 5 percent for primary education.

#### 4.3 Survey findings

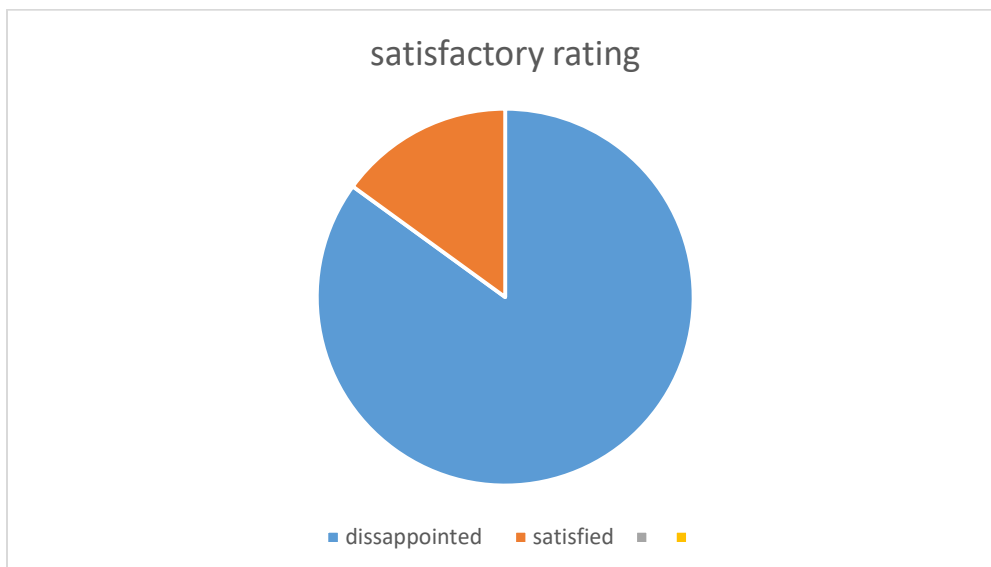
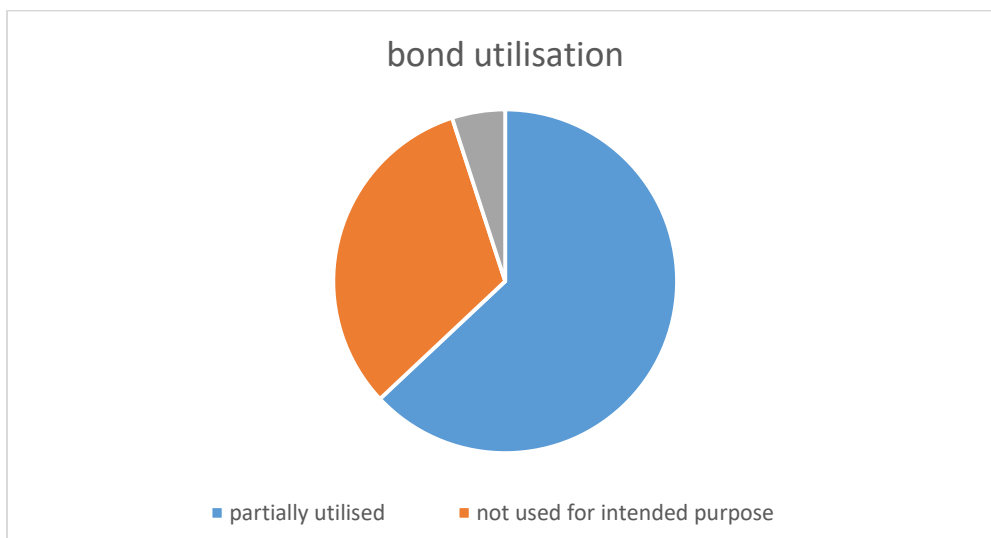
It was found that 77.5 percent of the respondents had basic knowledge of what a Eurobond is while 22.5 percent had no idea what Eurobond is. 72 percent believe that the debt was contracted for infrastructural needs while the rest 28 percent was shared by luxurious spending and official's allowances.

75 percent feel the issuance timing was off key while 25 percent believe it was the right thing to do. On the utilization phase shows that only 5 percent think the bond was effectively utilized, 32 percent feel the bond was not used for the intended purpose while the last group 63 percent feel the funds were partially utilized. The percentage of the satisfactory levels is 15 percent while the rest 85 percent say the utilization was disappointing attributing its cause to misappropriation of the funds from the intended purposes. The 25 percent of the respondent believe that the debt can be sustained while 75 percent think otherwise. 75 percent also believe that Zambia is likely to default on its bond payment which according to the respondents would cause reputation damage that would bring economic problems for the country.

30 percent feel there is no relationship between Eurobond debt and economic growth while 70 percent feel that there exist a relationship. 64.5 feel the relationship is negative, 17.5 percent feel it is positive and the rest of 15 percent do not know.

The majority of respondents (70 percent) feel that the government do not have effective debt management strategies while only 15 percent think their strategies are capable and the other 15 percent do not know.

The respondent recommended that the government should plan ahead of time on how it will utilize the borrowed funds, they further say the government should stick to the plan and invest in capital formation projects and not on consumption.



## 4.5 Descriptive analysis

**Table 4.5.1 descriptive summary**

variable	Obs	Mean	Std. Dev.	Min	Max
lngdp	34	22.65324	.3903044	22.28318	23.51056
Intds	34	19.40091	.5782478	18.64185	21.6836
Lnext	34	22.41073	.3094922	21.58852	22.74352
exchangerate	34	2.262365	.0008696	2.171433	6.152816

Author's compilation from Stata

The table in 4.2 indicate time series observation of a 34 year period which runs from 1981-2014, the mean, which is the average value of the series gotten by dividing total value of series by the number of observation, of LNGDP(gross domestic product), LNTDS(total debt service), LNEXT (logged external debt) and exchange rate are 22.65324, 19.40091, 22.41073 and 2.262365 respectively.

Std. Dev which indicates the spread or dispersion in the series of LNGDP, LNTDS, LNEXT and exchange rate are .3903044, .5782478, .3094922 and .0008696.

Minimum indicates the lowest or smallest values in the series and these are 22.28318, 18.64185, 21.58852, and 2.171433 for logged gross domestic product, total debt service, external debt and exchange rate respectively.

Maximum indicating the highest value in the series. The maximum for LNGDP is 23.51056, for LNTDS is 21.6836, for LNEXT is 22.74352 and finally for exchange rate is 6.152816.

From the above observation it is noted that during the period 1981 and 2014 economic growth was minimal it also shows an upward increase of debt which implies that the resources from the

growth of the economy would be diverted to service the debt as shown by the increased levels of high debt servicing from the table.

## 4.6 diagnostic tests

**Table 4.6.1 unit root test**

Variable	Test statistics	Critical value at 5%	Remark
LGDP	4.302	2.978	stationary
LTDS	4.084	2.978	stationary
LEXT	1.894	2.978	Non-stationary
Exchange rate	0.600	2.978	Non-stationary

**Table 4.6.2 unit root after first differencing**

Variable name	Test statistic	Critical value @ 5%	Remarks
LEXT	4.195	2.980	Stationary
exchange rate	4.866	2.980	Stationary

upon conducting the augmented-dicky fuller unit root test two of the results were found to be non-stationary and these are external debt and exchange rate (LEXT and Exchange rate) but after first difference of the two variables they became stationary.



**Table 4.6.3 correlation matrix table**

	<b>lngdp</b>	<b>lntds</b>	<b>lnext</b>	<b>Exchange rate</b>
<b>lngdp</b>	<b>1.0000</b>			
<b>lntds</b>	<b>-0.1868</b>	<b>1.0000</b>		
<b>lnext</b>	<b>-0.1698</b>	<b>0.3932</b>	<b>1.0000</b>	
<b>Exchange rate</b>	<b>0.9001</b>	<b>-0.1438</b>	<b>-0.0626</b>	<b>1.0000</b>

Author's compilation from stata

Table 4.4 presents the multi-colinearity test results which shows the relationship between explanatory variables. A value greater than 0.8 would imply a case of severe multi colinearity. This table shows that only one variable (exchange rate) shows severe correlation and this will be dealt with un the regression analysis and the other variables show negative for severe correlation among the explanatory variables and they can be used in the same regression without causing problems.

#### **4.6.4 Breusch-pagan test/ cook-Weisberg for heteroskedascity**

The Breusch- Pagan test for heteroskedascity results showed a P-value of 0.0006 and a chi2 (1) of 11. 71 the results imply that we reject the null hypothesis of constant variance and accept the alternative hypothesis and it indicates that the error terms vary across the observation to deal with this problem a Newey west regression is used as a remedy

#### **4.6.5 Autocorrelation test**

To test for auto correlation Breusch-Godfrey test for autocorrelation with on one lag show p-value of 0.0000 and the chi2 (1) of 29.693 the result show the presence of first order serial correlation implying that we reject the null and accept the alternative hypothesis and shows that one of OLS requirements was violated and will be accounted for in the regression analysis.

## 4.6.6 Co-integration test

To check for the long run relationship between economic growth and the independent variables (external debt, total debt service and exchange rate). The results did indicate a long run relationship between external debt and economic growth

Johansen tests for cointegration					
Trend: constant			Number of obs =		32
Sample: 1983 - 2014			Lags =		2
maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	20	35.128758	.	68.6717	47.21
1	27	55.504341	0.72014	27.9206*	29.68
2	32	62.910739	0.37054	13.1078	15.41
3	35	69.301842	0.32931	0.3256	3.76
4	36	69.464628	0.01012		

## Sourced from stata

## 4.7 Regression results

After conducting the necessary diagnostic tests, the regression analysis of the empirical model was conducted using Newey – west as remedy for the problem of heteroskedascity and autocorrelation. To reduce finding biased and spurious results.

**Table 4.7.1 Newey-west regression results**

### LnGDP is the dependent variable

Variable	Coefficients	t-statistics	P > (t)
Exchange rate	.1601553	9.46	0.000
Lntds	-.0110887	-0.27	0.788
Lnext	-.1356243	-1.91	0.066
Constant	25.54549	15.39	0.000

Significant at 5%, f-stat = 69.19, prob > f = 0.0000

The newey-west regression show f-stats of 69.19 and a p value of 0.0000 and these two figures indicate a significant relationship between GDP and the independent variables. What this means is that GDP is significantly determined by independent variables, external debt, total debt servicing and exchange rate.

The measure for the goodness of fit or the R-squared is and the adjusted R-squared is these results indicate that percent of the dependent variable is explained by the independent variables in the model.

According to the results exchange rate has a positive significant effect on Gdp implying that one percent increase in the exchange rate would raise economic growth by 0.1601553 percent holding other things constant.

The results further explain the negative significant effect of high external debt and an insignificant negative effect for debt service which reduces economic growth by 0.0110887 percent for every 1 percent increase on total debt servicing and 0.1356243 percent for every one percent increase on for external debt.

## **4.8 Debt management strategies**

Upon reviewing many debt management strategies papers some approaches have been common in most of them and under this part the most pragmatic approaches will be highlighted.

Zambia institute for research and policy research in a paper titled “a cautionary tale Zambia’s international sovereign bond issuance” recommends three policy options and these are

To consolidate fiscal policy by broadening the tax base and to enhance SME’s and informal sector taxation the paper further highlights the need to strengthen tax administration through modernization.

The second recommendation is implement measures to curb institutional and legal lags in debt management by having the draft of medium term debt management finalized and have regular reviews mechanism instituted. This is for the purpose of close monitoring and analysis of loan contraction and accountability of the parties involved.

The final policy option in this paper looking at other financing options, not to solely on acquiring funds externally but diverse finance sources. (Nalishebo et al, 2015)

Another paper by the republic of Ghana through the ministry of finance called the medium term debt management strategy for 2015-2017 discusses and agrees with Zipar's recommendation off diversifying the funding options and maturing the domestic debt and capital expenditures. (MoF Ghana, 2015)

A working paper titled, "trends and development in African's frontier bonds markets" highlights the need to also look at short term policies such the need to maintain macroeconomic stability and adequate use of proceeds from the financings. The paper also supports the need to build domestic markets and institutions. (Amadou, 2015)

Lastly the a working paper Africa debt rising suggests a debt management office, the paper says that, "if you are going to borrow aggressively you need a good DMO" the same paper highlight the need for domestic fund mobilization (Adams, 2015)

## **4.8 Discussion of the results**

The survey results indicates that the citizens feel disappointed with how the state has utilized the acquired funds from the Eurobonds, the survey also expresses the fear of citizens of a default. The recommendations from the survey also echo the same message of having efficient debt management strategies.

The regression shows that exchange rate has a positive effect on economic growth because when the local currency appreciates it implies that the foreign will be bought and sold at a cheaper price making exchange rate appreciation for the kwacha to have a positive effect on economic growth.

A negative effect was captured between high external debt and economic growth, this confirms the Keynesian growth theory that stipulates that economic growth comes from savings and investment. High debt causes leakages in the economy which in turn reduces economic growth or improvement because resources meant for investment is now paid to service the debt.

This study also supports a study by Winfred (2014) which did highlight the adverse impact of high external debt on Nigeria's economic growth. The results also support Muinga (2014) empirical finding on Kenya, the findings did show a negative relationship between external debt and economic growth.

The results indicate a negative relationship between economic growth and debt service which confirms our expectations, the negative relationship is not very significant but it doesn't mean it should be neglected rather precaution should be taken in consideration.

Debt management strategies did indicate the need to broaden domestic credit and capital markets, it highlighted the importance of diversification in fund sourcing and did emphasize on prudent debt management.

## CHAPTER FIVE

### SUMMARY, RECOMMENDATIONS AND CONCLUSION

#### 5.1 Introduction

This chapter presents summary findings, recommendations and finally the conclusion.

#### 5.2 Summary findings

##### 5.2.1 Empirical findings

The study examined the relationship between external debt and economic growth in Zambia over the period of 1981 – 2014. The empirical results showed a significant negative relationship between high external debt (EXT) and real gross domestic product (RGDP), implying that as external debt increases, economic growth deteriorates, the study also showed a negative relationship between total debt servicing (TDS) and real gross domestic product (RGDP)

The study indicated a positive relationship between exchange rate (EXCR) and real gross domestic product (RGDP)

The survey results showed that the citizen felt disappointed with how the state used the acquired resources and the populous fears the consequences of a default on the economy.

Lastly the debt management strategies advocate for consolidated policy and prudence in financial utilization.

##### 5.2.2 Theoretical findings

There exists a negative relationship between external debt and real gross domestic product. A unit change of external debt will bring about a less than proportionate change in real gross domestic product.

The study also shows an inelastic relationship between total debt servicing and real gross domestic product. A unit change will bring a less than proportionate change in real gross domestic product.

While exchange rate did show a positive relationship with real gross domestic product. A unit change in exchange rate would bring about 0.1601553

### **5.3 Recommendations**

Based on the empirical findings from the survey, regression analysis and debt management strategies several policy recommendations can be made.

External debt should be solely contracted for capital investments or self-liquidating projects and not consumption purposes. The government should carefully and rationally analyze the motives and purpose for loan acquisition to avoid increasing the debt stock to unsustainable levels. The citizens did recommend that the acquired resources should be channeled to projects that will generate income.

The second recommendation is for the state to broaden domestic fund mobilization through taxation enhancing by having the informal and SMEs to be covered and revising the mining fiscal regime.

Debt negotiating should avoid or abhor interest compounding to avoid paying more in interest payments than the benefits from the loan

The state should consider establishing infrastructural and investment fund for capital projects so that instead of borrowing the state can just use the funds saved up to carry out the necessary projects.

The government needs to diversify the economy from being monotonous to developing every sector of the economy to generate income and avoid loan build up. The need to invest in capital formation because capital is what increase production hence increasing economic growth.

The state should establish debt management office that will oversee debt acquisition, debt payments, debt rescheduling and tracking of debt utilization. This office should be in charge of the debt negotiations. The government should keep a close eye on the utilization of the acquired debt to avoid misuse and misappropriation of the resources.

## 5.4 CONCLUSION

The study examined the effect of external debt on economic growth in Zambia over the period of 34 years from 1981 – 2014 using the proxy real gross domestic product as the dependent variable and external debt, total debt service payment and exchange rate as independent variables. The regression highlighted a negative relationship between high external debt and economic growth, it showed a negative relationship with debt service payments while a positive relationship between exchange rate and economic growth was captured.

The survey results captured a high level of unsatisfactory with Eurobond utilization by the state, the survey also showed that the citizen expressed fear of a default which would have negative effect on the country's reputation and economic stability

Lastly the debt management approaches highlighted the importance of fiscal policy consolidation and broadening the funding sources through taxation enhancing and developing of domestic capital and finance markets.

### 5.4.1 Limitations of the study

Other variables were not included in the model because of a lack of secondary data on the variables left out.

### 5.4.2 Suggestions for further research

Further research should take the path of finding channels or ways through which external debt affects economic growth and an expert take on Eurobond utilization in Zambia.



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## APPENDICES

### Appendix 1: table of data

YEAR	GDP	TDS	EXT	EXCHANG
1981	5011251665	421482000	3609975000	0.00087
1982	4870296046	335530000	3662595000	0.000929
1983	4774512448	298317000	3745392000	0.001259
1984	4758430234	243020000	3751410000	0.001813
1985	4835293654	136418000	4487166000	0.00314
1986	4870296046	385786000	5633311000	0.007788
1987	5000608694	171089000	6480351000	0.009519
1988	5314684374	188935000	6694153000	0.008266
1989	5260288486	189952000	6553432000	0.013814
1990	5234982705	200650000	6904821000	0.030289
1991	5233091128	593204000	6958351000	0.06464
1992	5142510401	349497000	6700066000	0.172214
1993	5492060919	361636000	6477912000	0.452763
1994	5018346399	374530000	6807509000	0.669371
1995	5163761452	2612573000	6957765000	0.864119
1996	5484872360	250708000	7060060000	1.2079
1997	5694065807	245831000	6659844000	1.314498
1998	5672101163	202076000	6870439000	1.862069
1999	5935864632	152072000	5953053000	2.388019
2000	6167204442	189351000	5811476000	3.110844
2001	6495106581	186934000	6189777000	3.610935
2002	6787777020	226711000	6674671000	4.398595
2003	7259186360	558864000	6874318000	4.733271
2004	7769681028	468706000	7540235000	4.778875
2005	8331863990	284093000	5458981000	4.463503
2006	8990389067	144827000	2375621000	3.603072
2007	9741305581	124753000	2857153000	4.002523
2008	10498584527	167179000	3079658000	3.745661
2009	11466590602	170830000	3774356000	5.046109
2010	12647443702	149818000	4419178000	4.797137
2011	13449095110	221437000	5187702000	4.860666
2012	14354296407	232949000	5934707000	5.147253
2013	15317964949	330083000	6060547000	5.395887
2014	16237042857	410375000	7373097000	6.152816

## Appendix 2: table of logged data

EXCHANG	LNGDP	LNTDS	LNEXT
0.00087	22.33495	19.85929	22.00697
0.000929	22.30642	19.63122	22.02144
0.001259	22.28656	19.51367	22.04379
0.001813	22.28318	19.30865	22.0454
0.00314	22.29921	18.73123	22.22449
0.007788	22.30642	19.77079	22.45196
0.009519	22.33283	18.95769	22.59204
0.008266	22.39374	19.05691	22.6245
0.013814	22.38345	19.06228	22.60325
0.030289	22.37863	19.11707	22.65549
0.06464	22.37827	20.20105	22.66321
0.172214	22.36081	19.67201	22.62538
0.452763	22.42657	19.70615	22.59166
0.669371	22.33637	19.74118	22.64129
0.864119	22.36493	21.6836	22.66312
1.2079	22.42526	19.3398	22.67772
1.314498	22.46269	19.32015	22.61936
1.862069	22.45883	19.12415	22.65049
2.388019	22.50428	18.83986	22.50717
3.110844	22.54251	19.05911	22.4831
3.610935	22.59431	19.04627	22.54616
4.398595	22.63839	19.23919	22.62159
4.733271	22.70553	20.14142	22.65106
4.778875	22.77349	19.96549	22.74352
4.463503	22.84335	19.46481	22.42053
3.603072	22.91942	18.79105	21.58852
4.002523	22.99964	18.64185	21.77309
3.745661	23.07451	18.93458	21.84808
5.046109	23.1627	18.95618	22.0515
4.797137	23.26072	18.82493	22.20922
4.860666	23.32218	19.21565	22.36956
5.147253	23.38732	19.26633	22.50408
5.395887	23.45229	19.61485	22.52507
6.152816	23.51056	19.83258	22.7211

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**INFORMATION AND COMMUNICATION UNIVERSITY  
SCHOOL OF HUMANITIES**

**ZAMBIA'S EUROBOND DEBT MANAGEMENT 2016 SURVEY**

**MAIN QUESTIONNAIRE**

**IDENTIFICATION PARTICULARS**

<b>NAME OF PARTICIPANT</b>	
<b>CONTACT DETAILS</b>	
<b>EMAIL ADDRESS</b>	
<b>NAME OF INTERVIEWER</b>	

## INTRODUCTION AND CONSENT FORM

Hello, I'm Sarah Zulu a student with information and Communications University. I'm conducting a survey to establish the effect Eurobonds have on economic growth, to enumerate how the citizens feel about the utilization of these bonds and to document the citizen's recommendations on the effective management of external debt in this case Eurobond. My research is titled, Zambia's Eurobond debt management. You have been selected to participate in this survey, be informed that all your answers will be treated with the highest level of confidentiality and your response will only be shared with authorized personnel. The interview takes five minutes to complete.

For further enquiry you can get in-touch with, course supervisor Mr. Mukonda (PhD) on +260969 437466

Do you consent to participate in this interview?                      1. Yes     2. No

Interviewee ..... Date .....

## Appendix 3: questionnaire

### SECTION A: BACKGROUND STUDY

Tick the appropriate response

	QUSESTION	RESPONSE
1	What is your gender?	A. Female <input type="checkbox"/> B. Male <input type="checkbox"/>
2.	What is your age group?	A. 20 – 29 <input type="checkbox"/> B. 30 – 40 <input type="checkbox"/> C. 41 – 50 <input type="checkbox"/> D. 51 – 60 <input type="checkbox"/>
3.	What is the Highest level of educations attained?	A. Primary <input type="checkbox"/> B. Junior secondary <input type="checkbox"/> C. Senior secondary <input type="checkbox"/> D. College <input type="checkbox"/> E. University <input type="checkbox"/>
4.	What is your marital status?	A. Married <input type="checkbox"/> B. Single <input type="checkbox"/>
5.	What is your source of information?	A. News <input type="checkbox"/> B. Social media <input type="checkbox"/> C. Friends <input type="checkbox"/> D. Internet <input type="checkbox"/> E. Books <input type="checkbox"/>
6.	Which group do you fall in?	A. General public <input type="checkbox"/> B. Academician <input type="checkbox"/> C. Policy maker <input type="checkbox"/>
7.	Are you actively involved in the country's economic issues?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>



## SECTION B: EUROBOND KNOWLEDGE

**Note** (tick the appropriate response)

<b>Q1.</b> Do you understand the word Eurobond?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>
<b>Q2.</b> Are you aware of the Eurobond acquired by the Zambian government?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>
<b>Q3.</b> Are you aware of the reasons for acquiring the Eurobonds?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>
<b>Q4.</b> What do you think are the reasons for acquiring the Eurobonds?	a. Infrastructural development <input type="checkbox"/> b. Luxurious spending <input type="checkbox"/> c. Increase government official allowances <input type="checkbox"/> d. Other specify <input type="checkbox"/> ..... .....
<b>Q5.</b> Do you know the maturity period of the Eurobonds?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>
<b>Q6.</b> Are you aware of how the Eurobonds have been utilized?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>
<b>Q7.</b> Do you think the Eurobonds have been directed to the intended purposes?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/> C. Not fully <input type="checkbox"/>
<b>Q8.</b> Do you think the government should have acquired the Eurobonds the time it did?	A. Yes <input type="checkbox"/> B. No <input type="checkbox"/>

## SECTION B: EUROBOND UTILISATION

**Instruction: circle or write your response in the provided spaces**

<p>Q1. How do you rate the Eurobond utilization by the government?</p>	<p>A. Satisfactory <input type="checkbox"/></p> <p>B. Disappointing <input type="checkbox"/></p>
<p>Q2. Explain why you feel that way</p>	<p>1. ....</p> <p>.....</p> <p>.....</p>
<p>Q3. What are your recommendations on the utilization of the Eurobonds?</p>	<p>1. ....</p> <p>2. ....</p> <p>3. ....</p>
<p>Q4. Do you think the debt is sustainable?</p>	<p>A. Yes <input type="checkbox"/></p> <p>B. No <input type="checkbox"/></p>
<p>Q5. Is there any chance of a default by the government?</p>	<p>A. Yes <input type="checkbox"/></p> <p>B. No <input type="checkbox"/></p>
<p>Q6. What are the risks of a default?</p>	<p>1. ....</p> <p>2. ....</p> <p>3. ....</p> <p>4. ....</p> <p>5. ....</p>

**SECTION D: RELATIONSHIP BETWEEN EUROBOND DEBT AND ECONOMIC GROWTH**

<p>Q1. Is there a relationship between Eurobond debt and economics growth?</p>	<p>A. Yes <input type="checkbox"/></p> <p>B. No <input type="checkbox"/></p>
<p>Q2. What type of relationship exists between Zambia’s Eurobonds and economic growth?</p>	<p>A. Positive <input type="checkbox"/></p> <p>B. Negative <input type="checkbox"/></p>
<p>Q3. What does this relationship mean to the economic stability of the country?</p>	<p>1. ....</p> <p>.....</p> <p>.....</p>
<p>Q4. Do you think the government has effective debt strategies?</p>	<p>A. Yes <input type="checkbox"/></p> <p>B. No <input type="checkbox"/></p>
<p>Q5. What advice would you render to the government on Eurobond management?</p>	<p>1. ....</p> <p>.....</p> <p>2. ....</p> <p>.....</p> <p>3. ....</p> <p>.....</p> <p>4. ....</p> <p>.....</p>

**End of interview,**

**Thank you for participating.**

Interviewer.....date .....

Signature .....