EVALUATION OF THE IMPACT OF INCREASED GOVERNMENT BORROWING ON ECONOMIC GROWTH IN KENYA.

By

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Contents

ABSTRACT

The primary aim of this research project was to evaluate the impact of increased borrowing by the government on the growth of the Kenyan economy. The study targeted institutions like the Kenya National Bureau of Statistics (KNBS), Central Bank of Kenya (CBK) and the National treasury. The study relied on secondary data. During the study, we restricted ourselves to questions relevant to our topic. Data collected was grouped, tabulated and analysed. The conclusion was used to draw recommendation. Since the year 2010, we have seen increased borrowing by the government of Kenya majorly to fund the budget deficit. The government has been borrowing both internally and externally. Internally, the government has been borrowing from financial institutions, the public, etc. through the issue of securities, bonds and bills. While externally the government has been borrowing from the IMF, world bank, developed nations, etc.

The study's main objective was to evaluate the effects of the increased borrowing by the government on the economic growth of our country. Was the impact positive or negative? One specific objective was to establish how development expenditure relates to public borrowing. The other specific objective was to establish whether our current debt level is sustainable going forward given how increased borrowing relates to the growth of the Kenya economy and what should be the way forward. The study was timely and relevant to policy makers, Economists, and other stakeholders in making decisions in matters involving

economic policy and as an answer to research questions. The study acted as base for further future studies in the area. Now that within the last ten years our debt level has grown by approximately six trillion Kenya shillings, the study helped us come up with the answers to the questions raised here.

ACRONYMS AND ABBREVIATIONS

CBK – Central Bank of Kenya

KNBS – Kenya National Bureau of Statistics

GDP – Gross domestic product

GNP – Gross national product

EG – Economic growth

PD – Public debt

X - Exports

DECLARATION

This research project is my original work and has not been submitted to any other university for academic award.

Sign……. Date……25/06/2022……

STANLEY KAMENDI NGIGI

X51/34420/2019

This project has been submitted with my approval as the appointed University supervisor.

Sign……. Date.17/11/2022……

DR. SAMUEL NYANDEMO

PROJECT SUPERVISOR

DEDICATION

This research project is dedicated to my father, Samuel Ngigi together with my mother, Eunice Wangui owing to their immense support financially and constant moral encouragement all through my academic life. The project is also dedicated to my sisters for their unending support throughout the course of my studies.

May the Almighty God bless them.

ACKNOWLEDGEMENT

I hereby convey my regards to my supervisor Dr Samuel Nyandemo for his invaluable support and advice throughout my research work. His availability, quick response and willingness to dedicate his time to this entire process cannot go unnoticed and unappreciated. I would also like to recognise the department of Economics led by Prof. Anthony Wambugu for their great support. The department's quick response to my queries and their availability have contributed immensely to the finalistation of this research project. I would also like to acknowledge all my classmates due to their support be it moral or academic. Lastly, I would like to convey my regards to my friends and family for always being there for me as I undertook this research project.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Whenever a government runs into a budget deficit it might decide to borrow for the purpose of financing it. The government may borrow from either the external or the internal sources or from both sources. Public borrowing is a macroeconomic gauge, that forms the image of a country in the market internationally (Abbas, 2007). The government of Kenya's main source of revenue is taxation. Whenever the government spending exceeds the available revenue, the government is left with only two options. These include either raising the taxes and cutting on spending (austerity measures) or borrowing to fund the deficit. Most governments opt for the latter.

Government borrowings refer to the total foreign and domestic loans acquired by the national government. These indicate how much of government expenditure is financed by borrowing whenever the revenue generated from taxes happens to be less (Makau, 2008). Government borrowing is one way through which the government finances the deficit, but it's not the only way as governments can also come up with alternative ways to make money to finance their spending, thereby eliminating any need to incur interest (Martin, 2009).

Economic growth refers to a rise in services and goods produced at one particular point in time compared to another. The economy refers to the interrelations of tangible component of the universe consisting of stock of wealth and population, and the run of consumption and production (Daly, 2010). Abbas (2005) defined Growth of the economy as the rise in consumption and production of services and goods. It refers mainly to national economies and is normally measured in terms of GDP or (GNP).

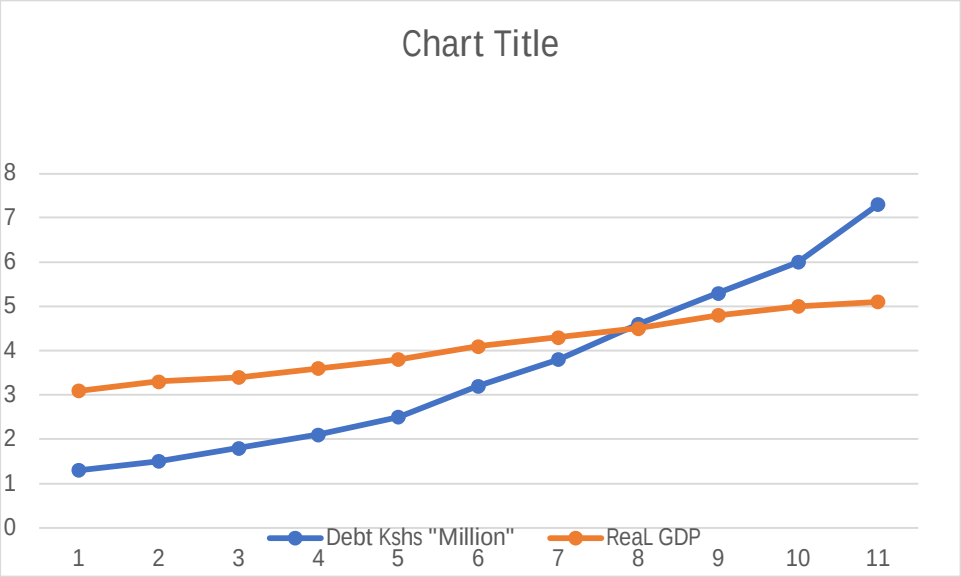
I undertook this research to establish the economic impact of increased government borrowing in Kenya. Has the increased borrowing contributed to economic growth or not? My study focused more on the last 10 years since the year 2010 to the year 2020.

1.1.1 Trend analysis of Kenya's public Debt to real GDP (2010-2020)

According to the IMF Statistics compiled in (2013), Kenya had the second highest debt to GDP ratio among the East African community countries with 53%. In first position was Burundi which had 72.3%. Tanzania came in third with a debt to GDP ratio of 34% followed closely by Uganda with a debt to GDP ratio of 27%. Among the five countries, Rwanda had the least public debt among with 22% debt to GDP ratio. IMF (2013) also indicated that in terms of servicing the debt, Burundi was doing better than Kenya with 50% while Kenya had 28.5% debt service (IMF, 2013)

As at year end 2010, our debt level was at approximately 1.32 trillion Kenya shillings. As at December 2020, our debt level was at approximately 7.2 trillion Kenya shillings (CBK, 2021). That shows that within the last 10 years our debt level has risen by approximately 6 trillion. See the table below showing the trend of public borrowing and GDP in real terms between the years 2010 and 2020.

Chart 1.1: Kenya's Public debt in relation to economic growth (2010 – 2020)



From the chart above, it's clear that the real GDP and the public had been on an upward trajectory over the 10-year period (2010 – 2020). This indicated that as the public debt had been on the rise so had the real GDP. It's however worthwhile noting that the slope of the public debt appeared to be steeper than that of the real GDP. This was an indication that the debt was rising at a faster rate compared to the economic growth**.**

The study sought to establish how the amount borrowed is utilised with respect to development. To achieve this, the study evaluated the relationship between the state borrowings and development expenditure within the same time period. The Kenyan law provides that funds borrowed shall be utilised only for the sole purpose of funding expenditure of development nature as opposed to funding expenditure of recurrent nature. Based on the information the study was able to form a conclusion on the question. See the table below showing the trend of development spending by government between the years 2010 and 2020.

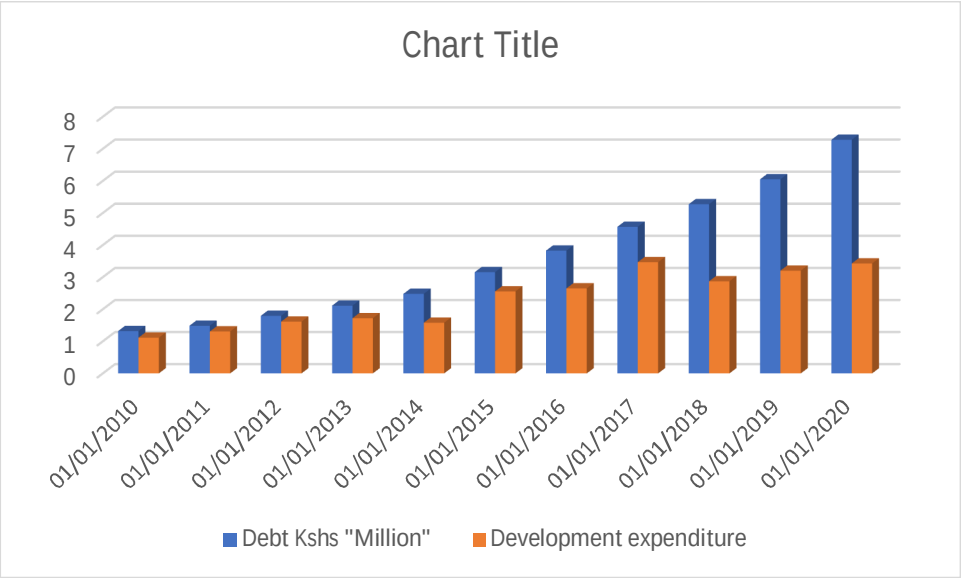
1.1.2 Trend analysis of Kenya's development spending against public borrowing (2010-2020)

Table 1.1 Kenya's development spending (2010-2020)

Year	Development spending KShs ''Million''
Dec-20	3,426,122.31
Dec-19	3,203,060.83
Dec-18	2,871,620.18
Dec-17	3,467,174.36
Dec-16	2,650,247.76
Dec-15	2,555,830.39
Dec-14	1,579,419.99
Dec-13	1,719,538.04

Dec-12	1,613,868.55
Dec-11	1,306,025.47
Dec-10	1,113,226.00

Chart 1.2 Kenya's development expenditure in relation to public debt (2010 -2020)



From table 1.1 above, it's important to note that that in the year 2010, development expenditure stood at KShs 1.13 billion. As at year end 2020, the development expenditure stood at KShs 3.42 billion. Table 1.3 shows that both the public debt and the development expenditure had been rising consistently within the 10-year study period. It's worth noting that the slope of the public debt appears to be steeper than that of development expenditure over the same duration. This means that public debt was rising at a higher rate than development expenditure.

The study sought to establish whether the debt level is sustainable. To establish this, the study analysed the debt to GDP ratio against exports growth within the 10-year period (2010 – 2020). It is our expectation that increased government borrowing will positively impact economic growth which will be reflected in the level of exports. As the economy grows so should the level of exports. In Dec 2011, the debt to GDP ratio was 42%. In Dec 2020, the debt to GDP ratio stood at 74%. When the national Debt in relation to GDP continues to rise while the level of exports remains constant or grows at very small margins, then it's an indication that the public borrowing may not be sustainable going forward.

Chart 1.3: Debt to GDP Ratio against exports (2010 – 2020)

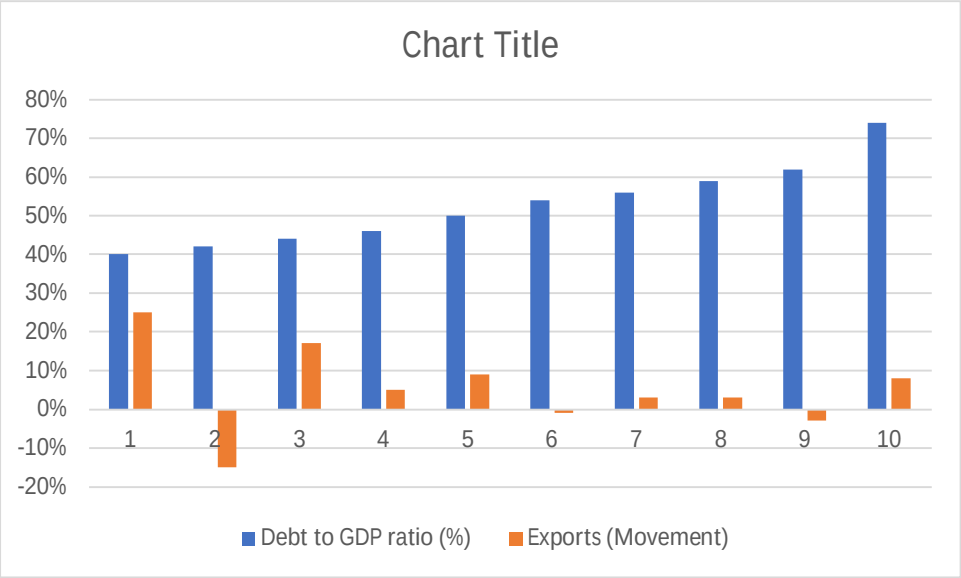


Chart 1.3 above shows how the debt to GDP ratio relates to exports. It's clear that the debt to GDP ratio has been on a steady rise over the 10-year period while the exports appear to have been fluctuating. Debt sustainability may also depend on other factors that may have a negative impact on the economy e.g., Covid 19. As

a result of the pandemic, the Kenyan shilling has depreciated against the dollar to a large extent. Approximately, 71% of the Kenyan external loans are denominated in USD. When the shilling depreciates, the interest payable annually increases significantly. This puts more pressure on the nation in terms of servicing the debts.

The study also sought to identify whether our debt level is sustainable going forward and whether the borrowings seem to be utilised in a proper manner. All these questions revolve around the economic growth of our country. It was our expectation that if the economy has been growing as a result of increased borrowing over the years, then the budget deficit should be on a reducing trajectory, that is decreasing at an increasing rate. Hence our debt level should be sustainable going forward. The government ought to have channelled most of the funds borrowed towards development. This amounts to increased government spending and as a result more money will trickle down to the citizens. As a result, there would be increased demand leading to economic growth. This study has drawn conclusions on the questions raised here.

1.2 STATEMENT OF THE PROBLEM

Over the 10-year study period, the debt level of Kenya skyrocketed according to CBK (2020) i.e., from 1.32 Trillion KShs in 2010 to 7.28 Trillion KShs in 2020. We have witnessed more and more borrowing by our government. As per the national treasury, most of these borrowings have been channelled towards

development, mainly infrastructure. More people have been connected to electricity, more roads and railways have been built etc. Furthermore, the national treasury has come to the defence of sourcing of borrowed by indicating that the government needs the money to implement the big four agenda (Wafula & Owino, 2019). To cement that, the research study sought to establish the impact of increased national borrowing on the expansion of the Kenyan economy. The study also sought to identify whether a relationship existed between public borrowing and development expenditure and whether the debt level is sustainable.

The study's research Idea came from my day-to-day experience with regards to the cost of living. Kenyans complain of high cost of living especially occasioned by limited resources. This is despite the fact that the government has continued to borrow over the last ten years in an attempt to fund budget deficit. The government claims that most of the borrowed funds were channelled towards development and hence had a direct effect on the expansion of the Kenyan economy. It hence occurred to me that research on the impact that increased borrowing had on the expansion of the Kenyan economy over the last ten-year period would shed some more light into this. For instance, we have witnessed some of the projects that the government heavily invested in not performing well in terms of revenue generation. For instance, the SGR has been running into losses which means that there are no returns on investment. Most likely than not,

this project might have been contributing positively towards the growth of our economy at that point in time.

Over the past few years, numerous research studies were undertaken in an attempt to establish the correlation between government borrowing and the growth of the Kenyan economy. Studies on how state borrowing, and economic growth relate to each other have continued to yield inconsistent results. Some studies presented a negative effect of increased government borrowing on the growth of the economy, others yielded a positive effect and others found the relationship to be insignificant. Most of these studies also appeared to be outdated as none appeared to cover the last three years unlike my study which covered a period of the last ten years, i.e., 2010 – 2020. A study by Kobey (2016) covering a period between 1993 - 2015, seeking to establish the effect of government borrowing on the growth of the economy presented a negative effect. A study by Njoroge (2020) covering a period between 2008 – 2018, presented a positive effect. A study by Achwoga (2016) covering a period between 1963 – 2015 resulted in a negative relationship between government borrowing and the growth of the Kenyan economy. Another study by Khatundi (2020) covering a period between 2003 – 2017 concluded that government borrowing has no significant notable effect on economic growth. A study by Mwangi (2017) showed a positive effect. Studies by Degefe (1992); Gikandu 10 (2012) presented a positive effect of government debts on the expansion of the Kenyan economy. When increase in public

borrowing mirrors increase in development expenditure, it is more likely than not that the economy will grow. None of the studies in the past looked at development spending as a function of economic growth and neither is there a study in the recent past that sought to investigate the debt sustainability in Kenya. My study sought to bridge the gaps by evaluating the impact of increased government borrowing on the growth of the Kenyan economy.

The outcome of this research endeavoured to bridge the gaps identified in the paragraph above. The effects of increased public borrowing on our economy had never been fully studied. The link between public borrowing and its effects on economic growth had not been explicitly brought out in the literature.

1.3 OBJECTIVES OF THE STUDY

Main Objective

To evaluate the impact of increased government borrowing on the growth of the Kenyan economy.

Specific Objectives

To evaluate whether our debt level is sustainable going forward.

To evaluate the relationship between public borrowings and development expenditure.

To draw necessary recommendations and conclusions from the study.

1.4 RESEARCH QUESTIONS

How do government borrowings impact the growth of the Kenyan economy?

How do public borrowings relate to development expenditure in Kenya?

Is Kenya's debt level as a nation sustainable going forward?

1.5 SCOPE AND JUSTIFICATION OF THE STUDY

Scope of the study

This study sought to evaluate the impact of increased government borrowing on the Kenyan economy. It considered the Kenyan government as the end user. This study targeted the government bodies that dealt with finance and economic planning e.g., CBK. This study was conducted within two months.

Justification of the study

This study considered the Kenyan government as the main user. Borrowing is a macro-economic issue that can only be regulated by the state. The findings of this study will guide the policy decisions of the government going forward. The need for borrowing is brought about by fiscal deficit. Borrowing enables expansionary fiscal policy. If the study found borrowing to be contributing positively towards economic growth, then this can be seen to be a viable option in case of a budget deficit going forward. If not, then the government can be able to exploit other

measures e.g., cutting on spending to reduce the budget deficit. The finding will also help bridge the research gap identified and clearly noticeable under empirical literature.

1.6 LIMITATION OF THE STUDY

The key constraint of the study was accessibility of accurate data on the subject. There was also a possibility of data being withheld as some of the information may be considered confidential.

Time constraint was another limiting factor as adequate time needed to be dedicated to the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 CRITICAL REVIEW OF THEORIES

In chapter two, we reviewed the literature, both the theoretical and the empirical, relating to the field of study. Empirical literature included that which has been analysed using econometrics and statistics.

If a keen and well researched student of history was requested to give their opinion on the rationality of a government borrowing, it goes without saying that it would be quite difficult task. This is due to the fact that various studies that have been undertaken in various countries regarding the impact public borrowing has on the growth of an economy have all led to inconsistent conclusions. Some studies have shown a positive effect, others a negative effect while others have shown that the effect is not significant.

Regrettably, in the field of economics things are not as clear. Perspectives of many Economists as expressed over different times in the past oscillate between recognizing the need for state's indebtedness and when it is most appropriate e.g., in times of economic recession and being against any attempt by any government to fund its expenditure through borrowing (Bilan, 2015).

The aim of this research was to examine the key theories developed in the past on the effect of government borrowing on the expansion of the Kenyan economy, identifying their similar and varying points, as well as the arguments they relied

on. This will be of much significance to the makers of the policies and economists as they provide guidance on the way forward regarding the subject matter.

2.1.1 The Classical View on the impact of government borrowing on economic growth

From the view of various economists who subscribed to the classical doctrine (e.g., Adam Smith, David Ricardo, John Stuart Mill and J.B. Say), the collective perspective seems to be largely not favourable to government borrowing. As strict advocates of ‘’Laissez-Faire’’, the classical Economists advised against any direct and indirect government’s right to intervene in the economy. The state was only allowed to facilitate a smooth flow of economic activities and relations. The classics argued that finances fail to be properly utilised in the public sector as compared to how they would be manged in the private sector. This is due to factors such as high levels of corruption. The classical economists were against government borrowing as they blamed it of distorting private capital from its productive functions to little or no productive functions. This then negatively impacts accumulation of capital and the growth of the economy in a country.

Adam Smith, a strict opponent of the idea of public borrowing, advised against it arguing that it slows the natural progress towards generation of wealth, prosperity, and economic growth. He argued that resources that would have been utilised productively in the privately are utilised by the government to cater for expenditure that is little or not productive hence leading to wastage with little or

no hope of reproduction in future. The impact of acquiring government borrowings in terms of accumulation of capital creates more harm than that of taxation since borrowing results to decreased production capacity (Smith 1904). David Ricardo, a classical Economist also advised against the government acquiring loans most especially if, the funds would be used to fund recurrent expenditure e.g., War. He likened this to withdrawing funds from capital of a state that is productive (Ricardo, 2005)

Thomas Malthus was however of a varying opinion regarding the subject matter. Malthus argued that it would be justifiable for a government to borrow in an endeavor to significantly lower the gap between supply and demand. This would lead to the correction of a market imbalance created by over production of services and goods. In such a scenario, then the government will borrow so as to increase demand for services and goods. However, warned against ‘’overborrowing’’, which would be likened to a country setting debt ceiling. He advocated for reasonable level of public debt since excessive production of services and goods from a mere likelihood would lead to a rough realism’’ (Tsoulfidis, 2007)

John Stuart Mill argued that exceptionally increasing public borrowings would lead to a sharp increase in rates of interest as the state is in a competition with the private sector over the same pool of resources. The high demand of loans by the government will lead to skyrocketing of rates of interest as financial institutions

would rather lend to the government due to the lower likelihood of default or lend to the private institutions at higher rates. This leads to a slowdown in the formation and accumulation of capital and growth of constructive employment. As a result, the people are left competing for the limited job opportunities which leads to a decline in their wages in real terms. As a result, people are left with limited disposable income to spend which is not favourable to economic growth as it limits demand of goods and services. Adolph Wagner holds the same view as many of the classical economists most precisely regarding impact of public borrowing on capital formation and accumulation. Wagner also advised against borrowing to cater for recurrent expenditure. He was of the opinion that borrowed funds should be strictly used to cater for development expenditure, failure to which a nation would find itself in huge budget deficits, which would be a path towards destruction of the economy, since the high burden of interest would result in public resources being thrown into the abyss (Holtfrerich, 2013)

2.1.2The Keynesian View on the impact of government borrowing on economic growth

The Keynesian doctrine mainly comprises of the thoughts of John Maynard Keynes who was a British Economist. This doctrine has further been developed by other Economists who have come after J.M Keynes. Keynesian Economists argue that the market demand is volatile and unstable due to some challenges like inflation hence unlike the Classics, they argue for government's right to intervene

to boost the activities of the market and to right these imperfections through fiscal and monetary policy. Keynesians support the idea of government acquiring loans to fund its activities as they associate it to a smooth functioning of economic activities within a state. Keynesians advise that government should take up loans only to fund value adding activities e.g., development of infrastructure so as to avoid negative economic effects and foster economic development and growth. Also, as stated above, the Market is not perfect. There are factors such as inflation that require to be regulated by the government. This inflation might be caused by reduced supply of goods due to reduced production. The government takes up loans so as to boost production of goods. This leads to the broadening of the economy.

There are other Economists e.g., A.H. Hansen, J. Hicks, P. Samuelson, etc, who subscribe to the Keynesian doctrine. Inspired by the events of the great economic depression of 1929 – 1933 and built on the theoretical construct of J.M Keynes they advise that a state should borrow in times of economic recession or when the economy is too slow or stagnant. This will help take back a country to the path of economic recovery and lower the rate of unemployment. The great depression negatively impacted both the poor and the well of. Trade between nations decreased by more than 50% while the rate of unemployment in the USA increased to 23%. In some countries, unemployment increased to 33%. The measures adopted involved increasing government spending and lowering taxes

(expansionary fiscal policy) (Filip,2010). This helped boost the overall demand for services and goods, supply and in general economic growth.

J.M Keynes advised that in times of recession, nations should allow the imbalance between the revenue collected and the government expenditure (budget deficit). This will then be funded through public borrowings. As a result, there will be a certain unused revenue e.g., savings not utilised in investment that will be brought into economic circulation to fund the deficit. This is presented as a form of investment that enables the lenders to earn interest income hence leading to economic growth. However, this whole idea of public borrowing is subject to strict limits. This means that this should apply only times of recessions and stagnation and must not be permanent. This means that once economic normalcy is restored and full employment is attained, the budget should return to equilibrium (Filip, 2010), (Duverger, 1975). This calls for fiscal discipline in ensuring that the debt level is sustainable.

Lowering the budget deficit and returning the budget to equilibrium is very possible depending on the actions of the states which lead to the rise of the production levels and income. Keynes argued that with this the budget will correct itself. (Keynes, 1982).

2.1.3 Neoliberal Economists' view on the impact of government borrowing to economic growth

These include the likes of Milton Friedman and Friedrich Hayeck. They borrowed widely from the classical economists. They advocated for ''leissez faire'' and hence discouraged state's intervention and state's indebtedness. According to the neoliberals, increasing budget deficits leads to future economic difficulties and decreased welfare (Landais, 1998). They discourage any attempt by the state to fund the budget deficits through public borrowings with the aim of relaunching a stagnating economy. Milton friedman argued that borrowing to fund budget deficit disrupts economic growth and stability (Friedman, 1995).

To justify their argument against public borrowing, the neoliberals mentioned the crowding-out effect. This is a scenario whereby the private investors and the state compete for loans (domestic debt). As a result, the demand for loans rises while the ''supply'' remains constant. As a result, the interest rate increases significantly. The private investors are hence unable to access the loans. The classical economists were of the view that finances are used less wastefully by the private sector as compared to the public authorities. As a result, when the government accesses most of the loanable amounts to fund deficits, the anticipated growth to GDP is usually lower than it would be expected. This was contrary to the Keynesian argument, who were of the view that funding budget deficit through public debt brings into circulation the unused resources. This way,

the amounts available for loaning grow equally to the demand hence the interest rate does not rise.

R.J. Barrow borrowed from the Ricardian equivalence theory to discourage the use of borrowed resources to fund budget deficit. He argued that the decision by the government to cut taxes and increase spending leads to budget deficit. As a result, the government will have to borrow to finance it. It is the expectation that, the people will use the tax savings (resulting) from the reduced taxes to invest and or consume hence increasing the demand of services and goods. However due to the act of public borrowing, people expect the government to tax them more in the coming future to enable debt repayment. To take care of that, saving for precautionary purposes will be on the rise (Caron, 2007). This means that the anticipated growth of the economy resulting from debt financing will not be realised.

2.1.4 The "Conventional" View on the impact of government borrowing on economic growth

This is the view held by most Economists and public policy analysts hence referred to as the 'conventional view' (Elmendorf & Mankiw, 1998). This view connects both the classical and the Keynesian views as pertains to the impact of borrowing by the state on the expansion of an economy over the short, medium and long term.

Over short term, the supply of goods and services is largely influenced by the level of demand. The demand on the other hand is largely influenced by government borrowing to finance the budget deficit. Hence, public borrowing plays a critical role towards reviving the economy over the short-term period of time precisely if the economy was stagnating, in depression or recession.

Paul Krugman opines that that Keynesian economics remains the best economic doctrine especially when a nation is faced with economic depression and recession (Krugman, 2009). This has been reflected in most public borrowing policies adopted by most countries in the European union when faced by various economic crisis e.g., depression and recession. They have resulted in expansionary fiscal policy whereby they have cut on taxes and increased spending. This usually leads to budget deficit which has to be finance through borrowing. This helps revert the economy back to upward trend.

Over the short term, the conventional Economists argue that government borrowing does seem to favour the expansion of the economy. This due to the fact that borrowing to fund budget deficits results in reduced private and public savings. Due the crowding out effect, the rate of interest skyrockets which is not good for the economy. Investment and the level of capital formation and accumulation reduce. As a result, government impacts economic growth negatively.

Paul Krugman, through the debt overhang theory noted that at times, high debt levels in future trivialize any efforts to redeem a nation's capability. This is due to the fact that the cost of servicing the debt (interest) may exceed even the returns on investment. This means that the projects invested in become less profitable to the borrower but more profitable to the lenders (All earnings from the projects go to the lenders). This to a large extent deters any investments hence negatively impacting the expansion of an economy (Krugman, 1988; Sachs, 1989). Debt overhang is the situation whereby a nation has liquidity issues to ana extent that there is limited, or no development (Claessens & Diwan 1990) Public indebtedness involves incurring expenditure in advance expecting future benefits. The conventional economists argue that government borrowing easily lead to burdens to the future generations as money borrowed will have to be repaid. Debt overhang theory is very relevant for Kenya as it is highly likely that the debt may not be sustainable going forward (The debt level may outgrow the country's ability to service it.)

Looking into the crowding out effect, the conventional economists were of the view that it lowers the overall consumption due to increased government expenditure especially if it is financed through taxation as the public is left with minimal disposable income. If the government cuts on taxes, then it has to finance the budget deficit through borrowings leading to lower levels of investment due to crowding out of individuals from borrowing (Emran & Farazi, 2009). When

the government borrows more domestically, the high-risk private institutions (likely to default) are not able to access loans because the financial institutions would rather lend to the state which is least likely to default. For developing countries, it is highly probable that the level of the debt will exceed the revenue generated (from taxes), hence the government will have to borrow externally to finance the deficit. Although external borrowing is least likely to have any impact on the internal lending rates and the amount available for loaning out there is a possibility of private capital being crowded out (Beaugrand, Loko & Mlachila, 2012). High amounts of government borrowing Crowds out investments in Kenya (Were, 2011).

2.2 EMPIRICAL LITERATURE

The impact of increased borrowing by the government on growth of the economy has been a topic of discussion by many distinguished economists and public policy analysts. It has hence brought about increasing literature on the impact government borrowing has on the economy. The empirical literature below analyses the effects of government borrowing on the growth of an economy.

Khanwar & Khan (2014) carried out a research study on the impact of government indebtedness on the expansion of an economy, investment and unemployment. The data was analysed using the simple regression model. They concluded that public borrowing negatively impacts economic growth. Further, they came to a conclusion that borrowing by the government leads to reduced

levels of investment and employment in Pakistan. Mjema (2006) conducted a study on the effect external borrowing has on Tanzania's economic growth. His conclusion was that its impact on the economy is unfavourable.

While conducting a study to identify the impact of government borrowing on the expansion of the Kenyan economy between 1996 and 2007, Maana, Owino & Mutai (2008) concluded that the increased borrowing has led to a higher cost on the economy in terms of debt servicing i.e., interest. This has led to unfavourable result on the expansion of the economy. The team applied the modified barrow growth regression to analyse the data.

Putunoi and Mutuku (2013) conducted a study on how domestic debt impacts the growth of Kenyan economy covering a period between 2000 and 2010. They used the Eagle-Granger (1987) and Johansen (1988) VAR based co-integration tests and concluded that internal borrowing has a desirable result on the growth of the Kenyan economy especially in the long term. Swamy (2015) carried out a research study to evaluate how government borrowing impacts the expansion of the economy using panel Granger. The study presented a positive correlation.

Maana et al. (2008) carried out a research study to establish how domestic borrowing impacts the expansion of the Kenyan economy using the modified Barro growth regression model. The study led to a conclusion that the rise in the debt resulted in a positive but not material impact on the expansion of the economy within the period in Kenya. The research study however did not find

any evidence that increased internal borrowing leads to the private sector and individuals being crowded out in Kenya.

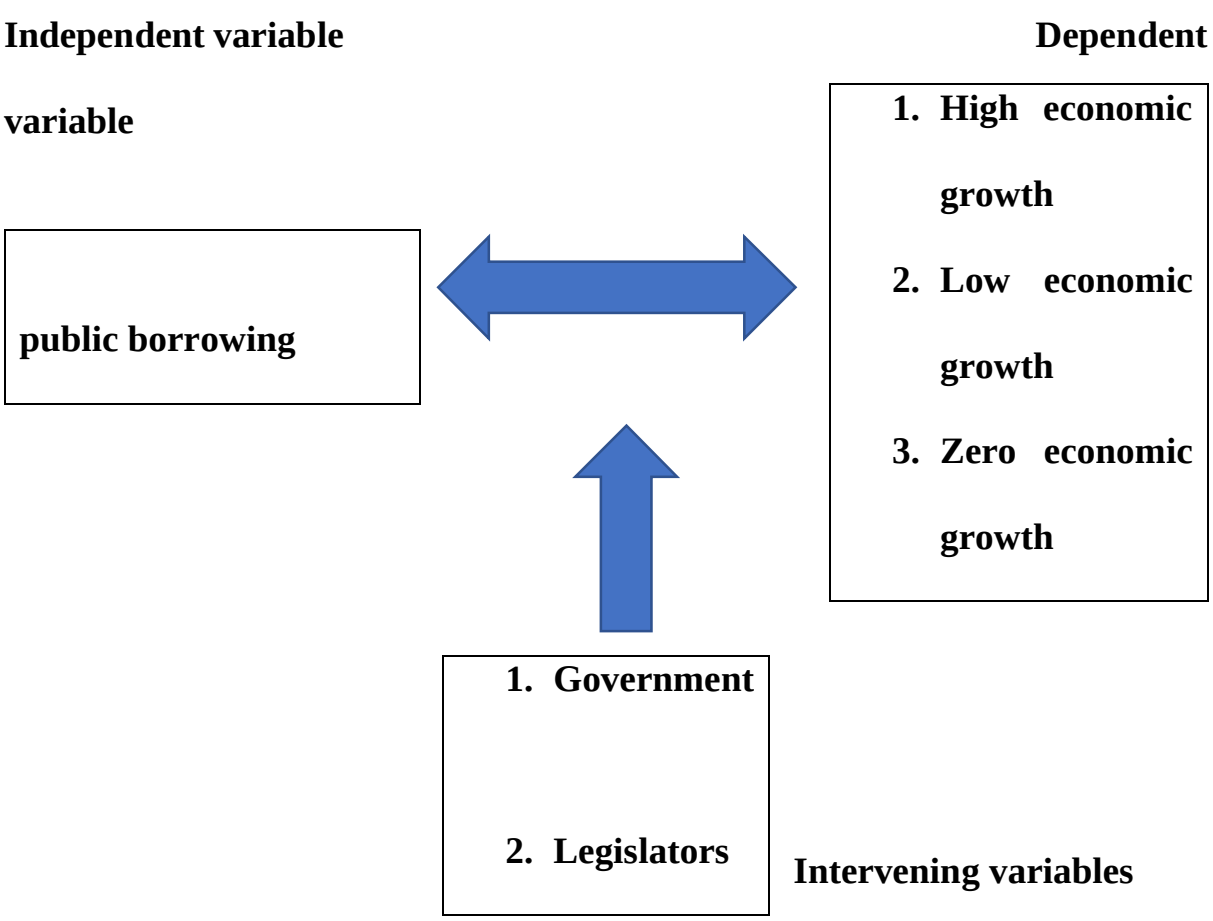
Iyoha (2009) undertook a study to establish how the external borrowing impacts the expansion of the Kenyan economy using the macro-economic model. The study found that as the debt level increases, the nation is faced with a higher burden when it comes to debt servicing. The amount could be utilised in other more productive activities. This as a result has a negative impact on economic growth.

Herndon, Ash & Pollin (2013) conducted a research study on the relationship between government borrowing and the growth of GDP. They used secondary and empirical data analysis. The study did not give any consistent results as it presented different performance in GDP growth in 20 developed nations.

2.3 CONCEPTUAL FRAMEWORK

This is a diagrammatic overview of how increased national borrowing impacts expansion of the Kenyan economy. The diagram clearly shows that increased borrowing by the government could either lead to high, low or zero economic growth and development depending on numerous factors. These factors could include manner of utilisation of funds borrowed (recurrent expenditure or capital expenditure), corruption, return on investment etc (See Figure 1 below)

Figure 1


Independent variable
Dependent
variable
public borrowing
1. High economic growth
2. Low economic growth
3. Zero economic growth
1. Government
2. Legislators
Intervening variables

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Research methodology refers to the various means used to single out, select, process and examine data about a particular area of study. The chapter consists of the study area, study design, theoretical framework, data sources, size of the sample, data collection methods, quality assurance, description and measurement of variables and data analysis methods.

3.2 THE STUDY AREA

The study adopted a macro-economic approach whereby the data collected and analysed (Economic growth, public debt, exports and development expenditure) related to the whole Kenyan republic.

3.3 THE STUDY DESIGN

Research design provides the overview, in practical means, of the core matters involved in the economic and social design. The study employed a descriptive design. Descriptive study was conducted so as to ascertain and examine the features of the significant variables in a situation. “It’s used to explore causation in order to find underlying principles.” (Yin, 2009). The data collected was analysed with the intention establishing how increased national borrowing impacts the growth of the Kenyan economy.

3.4 THEORETICAL FRAMEWORK

To evaluate the effects of increased national borrowing on the expansion of the economy, the Cobb Douglas production function was adopted. This production function illustrates the relationship between various inputs e.g., labour and capital, and the amount of output (growth of the economy) generated by the inputs. Economic growth is a function of labour and capital. This model was developed by Charles Cobb and Paul Douglas. Economic growth can be defined to mean the rise of the value of the value of services and goods, in monetary terms, produced in a country at one particular point in time. For goods and services to be produced, there has to be some factors of production e.g., labour and capital. These factors have to be financed by the government. For instance, when the government wants to build a road, it must involve capital in form of machinery and labour. For this to happen, a budget has to be come up with. Whenever the expenditure exceeds the revenue collected, then the government may result in borrowing so as to fund these factors of production.

Assuming the production of a single good, with two factors of production, labour and capital, the function will look as below.

$Y = AL^{B}k^{\alpha}$

Where:

Y = total goods and services produced in a year.

L = Labour

K = Capital (e.g., machinery)

A = Technology

β & α = relates in change in output in relation to change in input. These measure the responsiveness of input in relation to change in any factor of production. Some economies are labour intensive while others are capital intensive.

$\alpha + \beta = 1$, this refers to constant returns to scale, i.e., doubling the factors of production will double the output produced. This implies that the more the government borrows to spend, the higher the likelihood that the economy will grow.

$\alpha + \beta < 1$, this refers to decreasing returns to scale which means that raising the factors of production will result to a slight decrease in the level of output produced.

$\alpha + \beta > 1$, This relates to increasing returns to scale which means that increasing the factors of production will increase the output produced at a higher rate.

It is our expectation that the government borrows so as to fund production of goods and services. This is expected to have an impact to the economy which might be negative or positive.

3.5 THE DATA SOURCES

The data analysed was obtained from the National Treasury, the Central Bank of Kenya (CBK) and the Kenya National Bureau of Statistics (KNBS). These institutions are mandated with managing public resources, coming up with and implementing public policy. The study analysed data for GDP, Public debt, development expenditure and exports relating to a ten-year period falling between the years 2010 and 2020.

3.6 THE SAMPLE SIZE

Sampling refers to the process of picking an appropriate and sufficient number of items from the population.

The sample size consisted of 10 years falling in between 2010 and 2020. What informed the 10-year period was the research gap and the fact that country has seen the implementation of the new constitution as well as massive government borrowing surpassing any other period in history.

3.7 METHODS OF DATA COLLECTION

Data collection refers to an act of collecting experimental evidence with the objective of gaining more understanding of an issue and coming up with answers to questions that require timely research study undertaking (Flick, 2009). We employed secondary data collection technique through analysing information from the Central Bank of Kenya data base, Kenya National Bureau of Statistics and the National Treasury all of which are in public domain.

3.8 QUALITY ASSURANCE

A university supervisor reviewed the study in his capacity as an expert to enhance study content. The researcher made all necessary adjustments to the research study content as advised by the supervisor. Data collected was edited, classified, and input into the computer.

3.8 DESCRIPTION AND MEASUREMENT OF VARIABLES

The dependent variables in this research study are economic growth, development expenditure and exports. The independent variables are public debt and debt to GDP ratio. Table 3.1 below shows the definitions of the various variables.

Table 3.1: Variable's definition

Variable	**Definition**	**Expected sign**	**Source**
Dependent variables			
Economic growth	Economic growth can be defined to mean the rise in the value of services and goods produced in a country at a	Positive	CBK & KNBS

	particular point in time. This will be measured through annual real GDP in %.		
Development expenditure	This refers to the total amount incurred by the government to fund expenditure of capital and development nature e.g., building of roads.	Positive	CBK
Exports	This refers to the total value of services and goods in monetary terms, produced in a nation and sold to other countries.	Positive	CBK

Independent variables			
Public debt	This refers to the total amount of money owed by a government/nation to the various lenders. This consists of multilateral, bilateral and commercial debts.	Positive	CBK and National treasury.
Debt to GDP ratio	This refers to the annual debt expressed as a percentage of the annual GDP.	Positive	CBK

3.9 DATA ANALYSIS

MS excel tool pack was adopted in the study to assist in the analysis of the data. Data collected was checked for completeness and accuracy. Data analysis

employed statistical evaluation and identification of the cognation between government borrowing and the growth of the Kenyan economy. We used the simple regression model to analyse the data. Lionel and Khalid (1995) showed that regression analysis is applied where a specific internal attribute measure might have a material effect in a variant context. The strength of the relationship between dependent and independent variables was evaluated through Karl Pearson's coefficient of correlation.

The study will adopt the simple regression model:

$Y = \beta X + b + E$

Where: -

Y – Economic growth

X – Public debt

β – Constant slope coefficient

b - Constant of the equation

E – Error term

Economic growth in this case was the dependent variable.

Economic growth was measured using real GDP.

Public debt was the independent variable.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In chapter 4, interpretation and analysis of data is presented. The main purpose of the study was to evaluate the impact of increased national borrowing on the expansion of Kenyan economy. The specific objectives included establishing how public debt relates to development and establishing the sustainability of the government borrowing in Kenya. The population of this study consisted of public debt, real GDP, exports, and development expenditure between 2010 to the end of 2020. Secondary sources were obtained from the National Treasury, the Central Bank of Kenya and the Kenya National Bureau of Statistics.

4.2 Descriptive Statistics

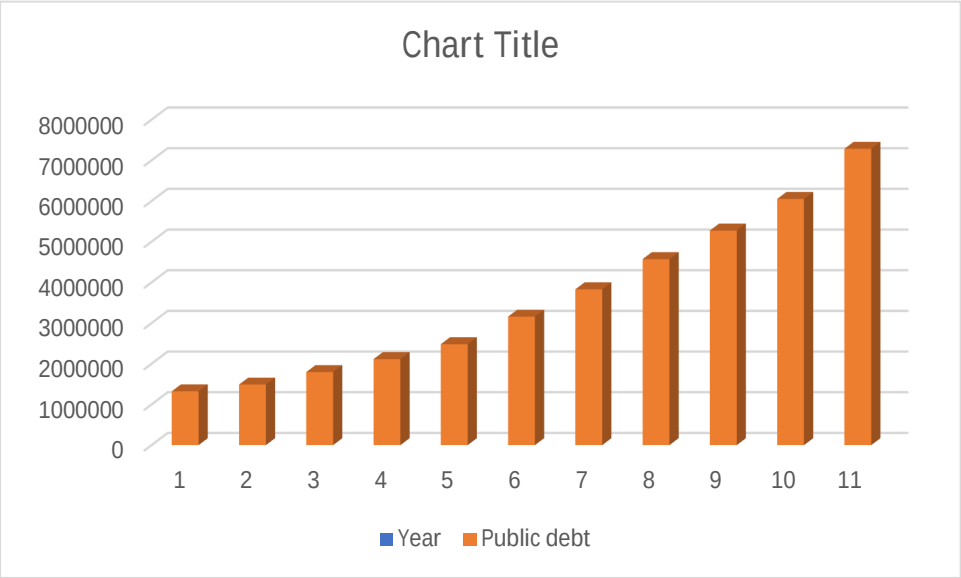
4.2.1 Impact of increased public debt on economic growth in Kenya (2010 – 2020)

Table 4.1: Annual Public debt

Year (Dec)	**Debt "KShs" "Million"**	**Increase ''KShs'' ''Million''**	**% Increase**
2020	7,281,826.42	1,232,899.92	20%

2019	6,048,926.50	776,423.46	15%
2018	5,272,503.04	702,873.25	15%
2017	4,569,629.79	742,331.73	19%
2016	3,827,298.06	671,534.73	21%
2015	3,155,763.33	677,318.34	27%
2014	2,478,444.99	366,893.25	17%
2013	2,111,551.74	318,313.48	18%
2012	1,793,238.26	307,750.28	21%
2011	1,485,487.98	165,349.98	13%
2010	1,320,138.00		

Chart 4.1: Annual Public debt (2010 – 2020)



From table 4.1 above, the public debt has been on an upward trajectory, and in this case, increasing at an increasing rate for the 10-year period (2010 - 2020). As at the end of the year 2010, the debt was at KShs 1,320,138 Million. As at the year-end 2020, the debt was at KShs 7,281,826 Million.

The public debt has been increasing at an average rate of 18.6% within the duration of study.

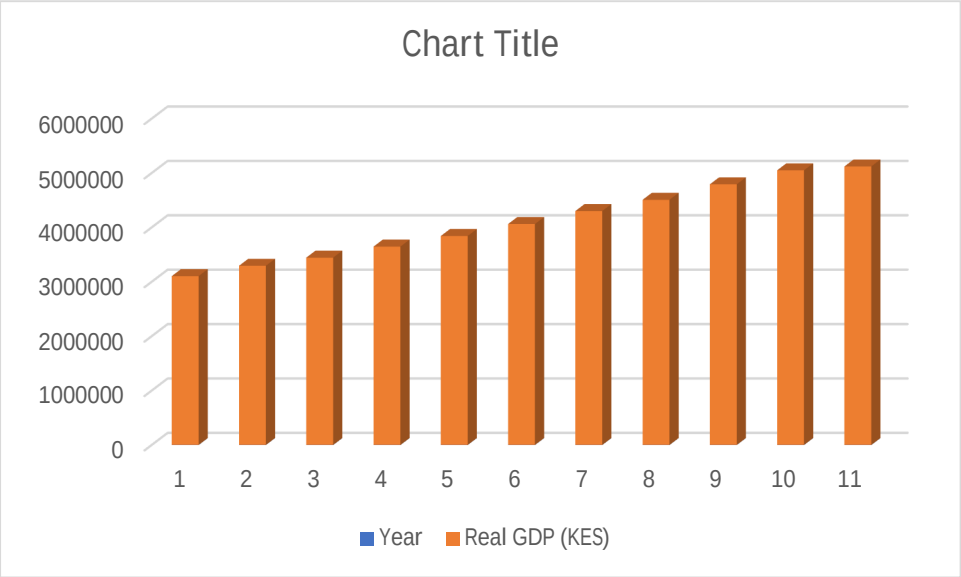
Table 4.2: Descriptive statistics for real GDP (economic growth)

Year	**Real GDP ''KShs'' ''Million''**	**Movement ''KShs'' ''Million''**	**% movement**

2020	5,120,381.60	70,695.60	1.00%
2019	5,049,686.00	257,512.00	5.40%
2018	4,792,174.00	284,797.00	6.00%
2017	4,507,377.00	206,678.00	4.90%
2016	4,300,699.00	238,798.00	5.80%
2015	4,061,901.00	219,715.00	5.60%
2014	3,842,186.00	195,365.00	5.30%
2013	3,646,821.00	202,482.00	5.70%
2012	3,444,339.00	150,313.00	4.60%
2011	3,294,026.00	189,723.00	4.40%

2010	3,104,303.00		

Chart 4.2: Descriptive statistics for real GDP (economic growth)



In this study we used real GDP to measure economic growth in Kenya within the period of study

From the table above, the economy has been growing at a slower rate compared to public debt for the 10-year period (2010- 2020).

The average economic growth over the ten-year period was 4.85%.

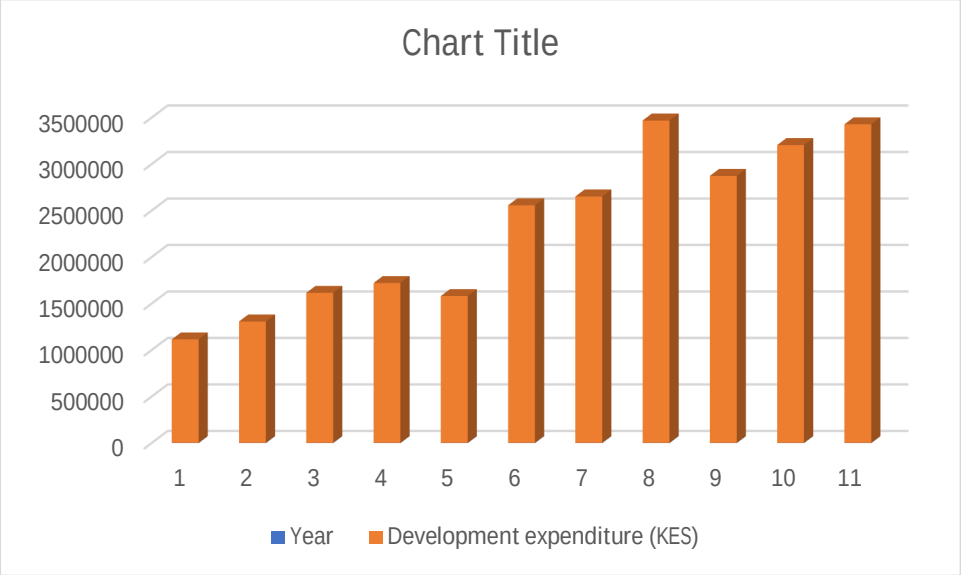
4.2.2: Relationship between public debt and development expenditure (2010 - 2020)

Table 4.3: Descriptive statistics for development expenditure by the government.

Year	Development Expenditure ''KShs'' ''Million''	Movement ''KShs'' ''Million''	% movement
2020	3,426,122.31	223,061.48	7%
2019	3,203,060.83	331,440.65	12%
2018	2,871,620.18	- 595,554.18	-17%
2017	3,467,174.36	816,926.60	31%
2016	2,650,247.76	94,417.37	4%
2015	2,555,830.39	976,410.40	62%

2014	1,579,419.99	- 140,118.05	-8%
2013	1,719,538.04	105,669.49	7%
2012	1,613,868.55	307,843.08	24%
2011	1,306,025.47	192,799.47	17%
2010	1,113,226.00		

Chart 4.3: Descriptive statistics for development expenditure by the government



From the data sample, the development expenditure has been mainly increasing but at times decreasing within the 10-year period (2010- 2020).

The average increase in public expenditure over the ten-year period of study was 13.9%.

4.2.3: Debt sustainability

Table 4.4: Descriptive statistics for Debt sustainability

Year	Debt to GDP ratio (%)	Exports (Movement)
2020	74%	8%
2019	62%	-3%
2018	59%	3%
2017	56%	3%
2016	54%	-1%
2015	50%	9%
2014	46%	5%
2013	44%	17%
2012	42%	-15%
2011	40%	25%

From the data sample, the debt to GDP ratio has been increasing over the 10-year period of study (2010- 2020). The exports have been fluctuating over the same duration.

4.3 Correlation analysis

4.3.1: Impact of increased public borrowing on economic growth

This study applied Karl Pearson's coefficient of correlation to measure how public debt relates to Real GDP (measures economic growth). The Pearson's correlation coefficient measures the extent of the linear relationship between a specific number of variables and is denoted by letter r. The range taken by the Pearson's correlation coefficient, r, is between +1 and -1

The digit 0 indicates zero correlation between two or more variables. A digit larger than 0 shows a +ve relationship, that is, as the value of one variable rises, the value of the other variable rises too. A digit smaller than zero shows a negative relationship, that is, as the value of one variable goes up the value of the other variable reduces. Pearson's Correlation Coefficient was carried out and the results obtained are presented in table 4.5 below.

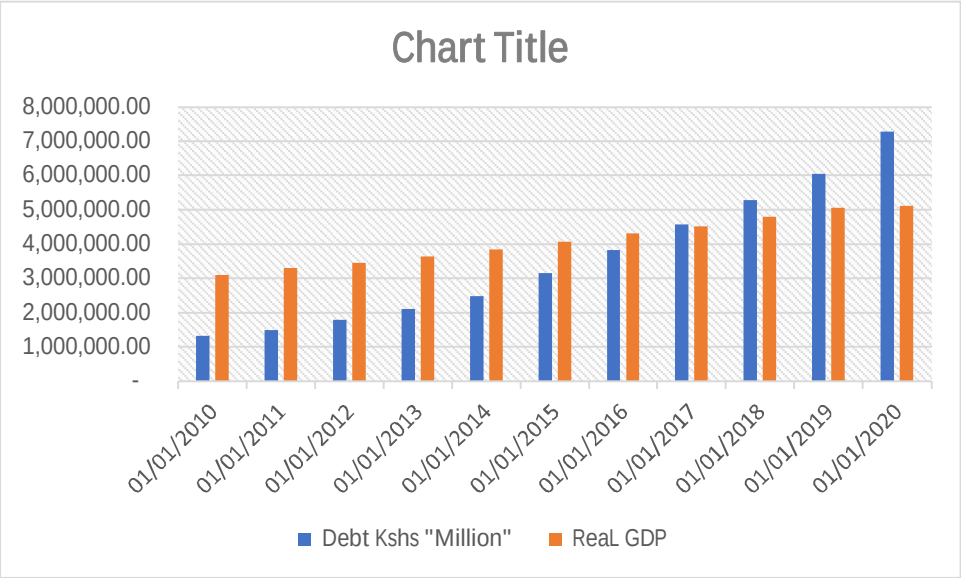
Table 4.5: Pearson's Correlation Coefficient

R	0.98**

Relationship between public debt and economic growth in Kenya

The results showed a significant positive relationship between government borrowing and economic growth (r = .98**), thus, indicating that when public debt rises, the growth of the Kenyan economy is impacted positively. The trend is illustrated in chart 4.4 below.

Chart 4.4: Chart (Public debt and real GDP)



4.3.2: Relationship between public debt and development expenditure

The Study applied Karl Pearson's correlation coefficient to measure the strength of the relationship between public debt and development expenditure (the variables).

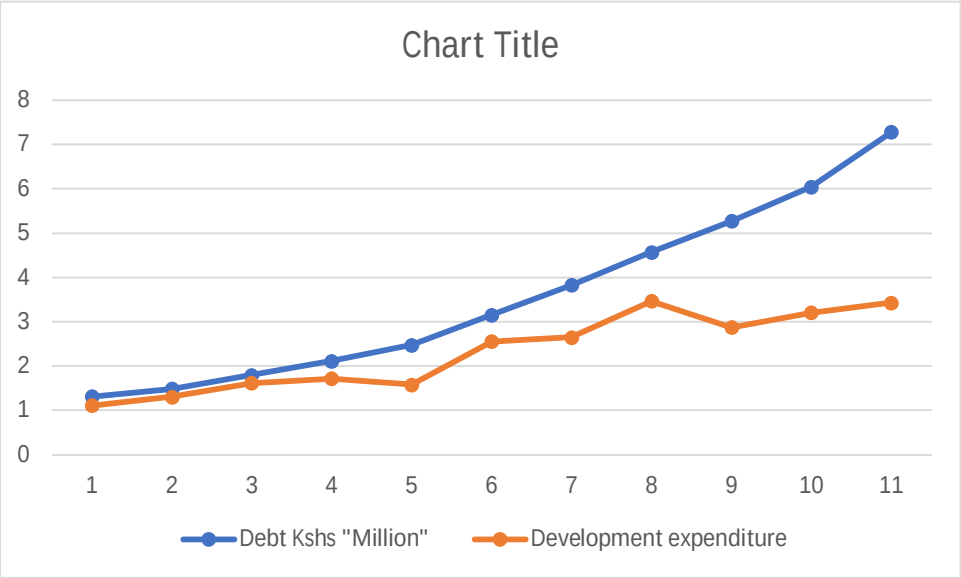
Table 4.6: Pearson's Correlation Coefficient

R	0.92**

Relationship between public debt and development spending

The results showed that public debt relates positively to economic growth to a significant extent (r = 0.92**), hence, indicating that growth in public debt influenced development expenditure in the Kenya positively. The trend is illustrated in chart 4.5 below

Chart 4.5: (public debt and development expenditure)



4.3.2: Debt sustainability (Debt to GDP ratio against exports movement)

The Study applied Karl Pearson's coefficient of correlation to measure how strongly Debt to GDP ratio relates to exports growth (the variables) in Kenya between the year 2010 and the year 2020.

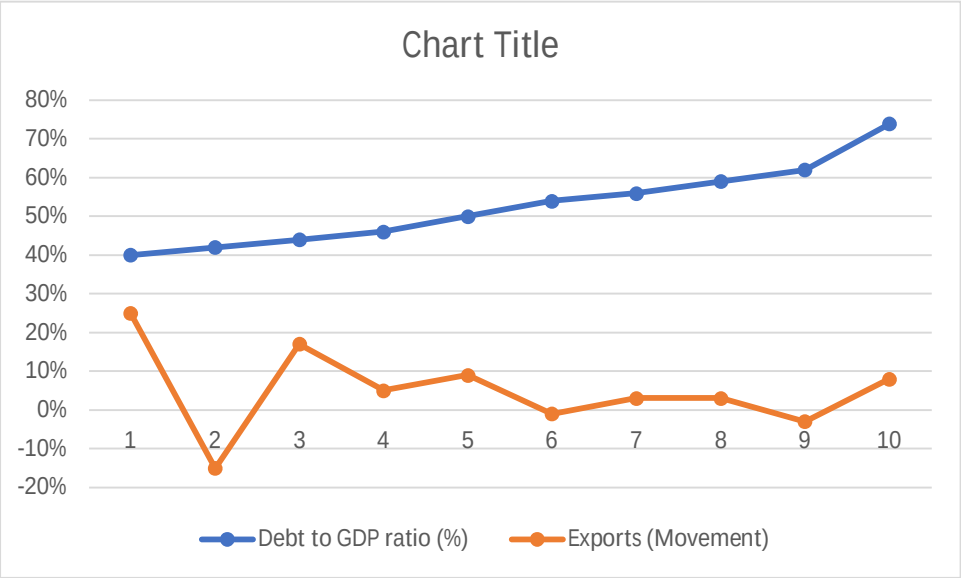
Table 4.7: Pearson's Correlation Coefficient

R	0.19**

Relationship between debt to GDP ratio and Exports

The results showed a negative relationship between debt to GDP ratio and exports movement (r =0.19**), hence, showing that increase in debt to GDP ratio influenced exports growth in the Kenya positively though not significantly. The trend is illustrated in chart 4.6 below

Chart 4.6: (Debt to GDP ratio and exports growth)



4.4 Regression Analysis

Regression analysis is a model in statistics that assesses how a particular number of variables relate to each other i.e., a dependent variable, whose value is not known, and an independent variable (or variables), whose knowledge can be availed. The equation that indicates how these variables relate to each other is found through this technique. People apply regression analysis in their quest to understand dependence, statistically, of a variable on the other(s). This analysis can clearly indicate what percentage of the variance between the variables is as a result of dependent variables and which percentage is as a result of the independent variable. The relationship between the variables can be shown graphically, or through the use of an equation. The model below guided the study:

$$Y= MX + b$$

Where: -

Y – dependent variable

X – Independent variable

M – Intercept

b - Constant of the equation

4.4.1: Impact of increased public borrowing on economic growth

Table 4.8: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.98	0.96	0.96	0.42

a. Predictors (Constant), Public debt

As per the table above, the coefficient of determination (how the change in the dependent variable can be explained by the changes in the independent variables) R2 equals 0.96, that is, public debt explains 96% of the change in economic growth.

Table 4.9: ANOVA

Model	Sum of squares	Df	Mean Square	F	Sig
Regression	38.37	1	38.37	220.52	0.00

Residual	1.57	9	0.17		
Total	39.94	10			

a. Independent variable: Public debt

b. Dependent variable: Economic growth

As per the table above, the significance value of the F statistic is 0.00 indicating that the change in public debt explains the change in economic growth and that the model is significant in entirety.

Table 4.10: Coefficient

Model	**Coefficients**	**Standard Error**	**T Stat**	**P-value**
Intercept	-7.79	0.78	-10.04	0.00
X Variable	2.78	0.19	14.85	0.00

a. Dependent Variable: Economic growth

4.4.2: Relationship between increased public debt and development expenditure

Table 4.11: Model summary

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.92	0.84	0.83	0.36

b. Predictors (Constant), Public debt

As per the table above, the coefficient of determination (how the change in the independent variable can explain the change in the dependent variable) R2 equals 0.92, that is, public debt explains 92% of the variance in development expenditure.

Table 4.12: ANOVA

Model	**Sum of squares**	**Df**	**Mean Square**	**F**	**Sig**
Regression	6.52	1	6.52	50.49	0.00
Residual	1.16	9	0.13		
Total	7.68	10			

c. Independent variable: (Constant), Public debt

d. Dependent variable: development expenditure

As per the table above, the significance value of the F statistic is 0.00 indicating that the independent variable (public debt) explains the change in development expenditure and that this model is significant in entirety.

Table 4.13: Coefficient

Model	**Coefficients**	**Standard Error**	**T Stat**	**P-value**
Intercept	0.87	0.23	3.79	0.00
X Variable	0.40	0.06	7.11	0.00

b. Dependent Variable: development expenditure

4.4.3: Debt sustainability (Debt to GDP ratio and exports)

Table 4.14: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.19	0.04	-0.08	0.11

c. Predictors (Constant), Debt to GDP ratio

As shown in the table above, the coefficient of determination, R2 equals 0.04, that is, debt to GDP ratio explains only 4% of the variance in exports.

Table 4.15: ANOVA

Model	Sum of squares	Df	Mean Square	F	Sig
Regression	0.00	1	0.00	0.3	0.60
Residual	0.09	8	0.01		
Total	0.09	9			

e. Independent variable: (Constant), debt to GDP ratio

f. Dependent variable: Exports

As shown in table above, the F statistic has a significance value of 0.60, indicating that the independent variable (debt to GDP ratio) explains the change in exports.

Table 4.16: Coefficient

Model	Coefficients	Standard Error	T Stat	P-value
Intercept	0.54	0.04	13.9	6.90
X Variable	-0.18	0.33	-0.54	0.59

Dependent Variable: Exports

4.4.4 Regression equation

a) Impact of increased public borrowing on economic growth

The regression equation can be presented as below.

EG= 2.78PD - 7.7+ et.

Regression analysis shows the extent to which change in public debt significantly explains the change in economic growth. The significance in prediction is determined by a beta coefficient of 2.78. The results show that economic growth is positively impacted by increased public borrowing.

b) Relationship between increased public debt and development expenditure.

The regression equation can be presented as below.

EG= 0.4PD + 0.87 + e t.

Regression analysis shows the extent to which change in public debt significantly explains the change in development expenditure. A beta coefficient of 0.4 determines the significance in. The results show that development expenditure is positively impacted by increased public borrowing.

c) Debt sustainability

The regression equation can be presented as below.

$X = -0.18PD + 0.54 + et.$

Regression analysis shows the extent to which change in debt to GDP ratio significantly predicts change in exports. A beta coefficient of -0.18 determines the significance in prediction. The findings indicate that the public debt might not be sustainable going forward given that exports are not positively impacted by the debt to GDP ratio within the duration of the study.

4.5 Summary and Interpretation of Findings.

The primary aim of the study was to establish how government borrowing related to the growth of the economy between the year 2010 and the year 2020 in Kenya. Within this period, Kenya has been operating under a new constitutional framework. For a major part of the duration, the country has been under the same government that has borrowed heavily in its quest to invest in major/ambitious infrastructural projects.

According to table 4.1 above comprising of data from the CBK website, public debt amounted to KShs 1,320,130 Million as at year end 2010. As at year end 2020, the debt amounted to KShs 7, 281,826 Million. This shows that over the ten-year period, public debt increased significantly. Public debt was on the rise over that particular period at an average rate of 18.6%. According to table 4.2 the economy was growing at an approximately constant rate between the year 2010 and the year 2020. As at year end 2010, the real GDP amounted to KShs 3,104,303 Million. As at year end 2020, the real GDP amounted to KShs 5,120,382 Million. Over the period, the economy grew at a rate of 4.85% in average.

Data from the CBK website shows that public debt was growing at a rate of 18.6% in average while the economy grew a rate of 4.85% in average. This shows that the debt was growing at a higher rate than the economy.

According to Pearson's correlation coefficient analysis shown under table 4.4, government borrowing impacted the growth of the economy significantly in Kenya within the ten-year period. As per the regression analysis shown under table 4.4.1, increase in public debt between the year 2010 and the year 2020 significantly explains economic growth within the same duration. This can be explained by the assumption that government spent the money borrowed on development. This created job opportunities contributing to increased disposable

income. This led to increased demand of goods and services translating in economic growth and development.

One specific objective was to establish how public debt relates to government spending. The government borrows to fund the budget deficit. Money borrowed should only be used to finance development expenditure and not recurrent expenditure. In the wake of expanding government borrowing, we sought to establish how public debt relates to the development spending. According to the data from the national treasury website, as shown under table 4.3, development spending as at the year 2010 amounted to KShs 1,113,226 Million. The same amounted to KShs 3,426,122 Million as at year end 2020. That shows that within that time frame, development spending was on a steady rise (averaging at 14%) though at a slower rate compared to public debt which was rising at an average rate of 18.6%.

According to Pearson's correlation coefficient, shown under table 4.5 above, public debt influenced development expenditure positively within the 10-year period. This means that as public debt grew, so did the development expenditure. Regression analysis under table 4.10 above indicates that significant growth in development expenditure could be explained by the rise in public debt within the 10-year period.

The other specific objective was to assess whether the debt level is sustainable going forward. To achieve this, we analysed the debt to GDP ratio within the 10-

year period between 2010 and 2020 and compared the same to the export's growth within the same time period. Debt sustainability assessment refers to an assessment of a country's current level of the debt and prospective borrowing on its present and future ability to service the debt obligation (CBK, 2021). According to table 4.4 above, as at the year-end 2011, the debt to GDP Ratio was at 40% while as at year end 2020 it stood at 74%. This indicates that within that time period, public debt was rising at an increasing rate as compared to exports that were moving at a fluctuating rate. A higher debt to GDP ratio indicates a higher debt distress level.

Pearson's correlation coefficient, as shown under table 4.6, shows that increase in debt to GDP ratio influenced exports growth in Kenya positively though not significantly. Regression analysis under table 4.13 showed change in debt to GDP ratio could only explain 4% of the change in exports growth within the 10-year period.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Chapter five summarises the findings, conclusion, and recommendations of the study. The main objective of the study was to evaluate the impact of government borrowings on the growth of the Kenyan economy. The study covers a 10-year period between 2010 and 2020. The empirical literature on the subject showed inconsistent results/conclusions. Some studies presented a positive effect, others a negative effect while some presented inconclusive results. The specific objectives of the study included establishing how public debt related to the development expenditure and analysing the sustainability of public debt going forward.

According to the findings of this study, government debt has been on the rise within the period of study. As at the year 2010, the debt amounted to KShs 1,320,138 Million. As at the year-end 2020 the debt amounted to KShs 7,281,826 Million. Similarly, the economy has been growing within the period of study though at a slower rate. Government expenditure on development has also been on the rise and same case for the debt to GDP ratio. Exports have however been moving at fluctuating rates over the duration of the study.

5.2 Conclusion.

Since the year 2010, when the new Kenyan constitution was promulgated, the debt level has been on the rise. This can also be attributable to the new government that came into power in the year 2013. The government invested heavily in infrastructural projects e.g., the SGR. This led to budget deficits which were financed through commercial, bilateral and multilateral borrowings (CBK, 2021). The primary aim of this study was to therefore evaluate the impact of government borrowing on economic growth in Kenya. One specific objective of the study was to establish how government borrowing related to the development expenditure. The other specific objective was to establish whether Kenya's debt level is sustainable going forward.

According to the findings of this study, the debt level has been on the rise since the year 2010. It has been growing at an average rate of 18.6%. Economic growth has also been on the rise within the period of the study though at a constant rate. The findings have therefore revealed that government borrowing impacts the growth of the Kenyan economy positively.

From the findings of the study, government spending on development has been on the rise within the study period. The study therefore presents a positive relationship between government borrowing and development expenditure.

The study also aimed to identify whether the debt level is sustainable. One way to achieve this is to carry out a solvency test which was done in this study. The

study conducted an analysis of debt to GDP ratio against exports within the period of study. From the findings, as at year end 2020, the debt to GDP ratio stood at 74%. According to the joint World bank-IMF debt sustainability framework, a debt to GDP ratio of 74% indicates a strong debt burden. The higher the debt to GDP ratio the higher the likelihood of default. The study also found that the debt to GDP ratio related negatively to exports growth in Kenya. The study therefore concludes that the country's borrowing trend is not sustainable going forward.

5.3 Policy recommendation

As per our findings, government borrowing positively impacted the growth of the Kenyan economy within the period of study, however the economy grew a rate of 4.85% in average while the public debt grew at a rate of 19% in average over the same duration. It is therefore clear that the debt grew at a way faster rate as compared to the public debt. The government should investigate this and identify what the cause could be. Borrowed funds are used to finance development projects which are expected to generate returns. For this to happen, the government should be conducting proper feasibility studies. The government also ought to be conducting cost benefit analysis before investing in any particular project. Could be that the projects the government has been investing in have not been generating adequate returns as would be expected hence the slow growth rates. One example is the SGR in which the government invested billions of shillings yet it's currently running into losses hence not contributing towards economic growth.

The government should also ensure that all the funds borrowed are directed towards development expenditure and not recurrent expenditure. This will lead to higher rates of economic growth. According to the findings of this study, development expenditure grew at a rate of 14% in average while the public debt grew at a rate of 19% in average. This is an indication that the government might not be channelling all borrowed funds towards development. If in any case the

government is channelling some funds towards recurrent expenditure, then this may imply that the country has a wage bill problem. The government should conduct a wage bill audit to establish whether there is any unnecessary wages and salaries being paid.

The government should aim for fiscal consolidation. This calls for a high level of fiscal discipline so as to significantly reduce budget deficit. One way of doing this is by cutting down on the ambitious infrastructural projects which have been costing the country a lot of money. The government should also create non-debt creating financing options for developments. The government should fight corruption so as to increase efficiency in public spending. The government should also be going for loans which offer more favourable terms so as to reduce the debt servicing burden which takes up a very huge percentage of the revenue generated.

5.4 Limitations of the study

This study had many limitations. First, the study could not ascertain the accuracy of the data that was used for the analysis irrespective of the fact that it was obtained from very reliable sources. The aspect of human error can never be completely ruled out.

Time was also a limitation in this study. This limited us from conducting an in-depth analysis with regards to the objectives of this study most especially the debt sustainability.

5.5 Recommendations for further research

From the findings of this research study, it's clear that public debt has been growing at a faster rate compared to economic growth. As stated above, the reason for this could be that the government invests in projects that do not generate the expected returns on this. For now, this is an assumption that cannot be confirmed. We hereby recommend that a study be undertaken with an aim to analyse a sample of the major projects undertaken by the Kenyan government. The cost of the projects visa vis the returns should be analysed, and a conclusion drawn as to whether they contribute positively towards the growth of this economy.

One of the policy recommendations was that the government should come up with proper mechanisms to fight corruption as it could be interfering with the efficient use of the borrowed fund. However, the study cannot tell exactly how much of the borrowed fund is estimated to have been lost to corruption. We therefore recommend that a research study be conducted to establish the impact of corruption on government borrowing in Kenya.

This study has established that there is a positive relationship between public debt and development expenditure which implies that most of the borrowed funds are channelled towards development. However, this study has not concluded with certainty how the public debt is utilised hence we feel that more research in this area would be required. We recommend that a research study be conducted to

exclusively establish how the borrowed funds are utilised by the government. According to the Kenyan law, the government should not borrow to fund recurrent expenditure.

As a result of time being a limitation to this study, in-depth analysis of debt sustainability might not have been achieved. Our study focused more on the debt to GDP ratio against exports which is a solvency indicator. Further analysis of public debt against exports would provide more insights on the debt sustainability issue. There are liquidity indicators of debt sustainability which include public debt servicing to revenue ratio and debt servicing to export ratio. Studies focusing on those indicators would be of key importance.

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