THE DETERMINANTS OF DEFICIT FINANCING IN KENYA

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULLFILMENT FOR THE AWARD OF DEGREE OF MASTERS OF BUSINESS ADMINISTRATION, UNIVERSITY OF NAIROBI

NOVEMBER 2013
DECLARATION

This Research Project is my original work and has not been submitted in any other University

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ACKNOWLEDGEMENT

Several people contributed in various ways to the successful completion of this work. I wish to express my sincere thanks to God for His wisdom and good health that made it possible for me complete this project successfully. My sincere appreciation also goes to my family and friends for their moral support and encouragement during the study.

I gratefully acknowledge the efforts of my supervisor Mr. Mirie Mwangi for the professional advice and tireless guidance in the research project. Your critique helped the project take its present form. My special thanks are extended too to all the lecturers at the School of Business and staff at the MBA coordination office and the library staff.

The contributions of those not mentioned are, however, equally appreciated. I would also wish to extend my appreciation to my fellow students at the School of Business and all other friends with whom we shared, discussed and exchanged ideas. I acknowledge the authors whose pioneering studies were of help to this work. To all of you kindly accept my appreciation for your great support. May God bless you.
DEDICATION

The research project is dedicated to my late father and mother.
ABSTRACT

Fiscal deficits have attracted a great deal of attention over the past few decades. This is so because it has been blamed for most of the challenges that beset the developing countries such as high inflation rates, over indebtedness, loss of a country’s sovereignty, crowding out of private sector among others. The objective of this study was therefore to analyze the determinants of deficit financing in the Kenyan context. This study adopted exploratory design which attempted to examine the determinants of fiscal deficit. The study analyzed data for 10 years (2003 to 2012) which represented the sample size for the study using Multivariate Linear Regression model specification. The analyzed data presented using tables and figures. The study established that government ordinary revenues in Kenya had been gradually increasing and that government expenditure has been increasing over the study period. The study further established that there is a direct relationship between debts and the fiscal deficits. The study concludes that government ordinary revenues, external revenue, debt service and government expenditure are significant determinants of fiscal deficit in Kenya. The study recommends that the government should intensify its efforts in channeling government expenditure to productive activities that will grow capacity of the economy to mitigate debt unsustainability. Secondly, the government should explore avenues of expanding the revenue base to minimize borrowing. The study finally recommends that austerity measures be instituted to curb non-productive and wasteful expenditures across government.
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<td>Budget Policy Statement</td>
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<td>PFMA</td>
<td>Public Finance Management Act</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GFS</td>
<td>Government Finance Statistics</td>
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<tr>
<td>HIPC</td>
<td>Heavily Indebted Poor Countries</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>KRA</td>
<td>Kenya Revenue Authority</td>
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<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
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<td>PFMRP</td>
<td>Public Finance Management Programme</td>
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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Black (1997) defines fiscal deficit as the excess of government total expenditure over its income, thus a government puts more money into the economy than it takes out by taxation, with the expectation that increased business activity will bring enough additional revenue to cover the shortfall. It is also referred as deficit spending or simply put, debt to cover excess of expenditure over income. When the outlay of a government (its purchases of goods and services, plus its transfers (grants) to individuals and corporations, in addition to its net interest payments) exceed its tax revenues, the government budget is said to be in deficit.

Blejer and Cheasty (1990) agree that the conventional deficit can therefore, be defined as the difference between current revenues and current expenditures of government. Which reflects the financing gap that needs to be closed by way of net lending, including lending from the Central Bank. The conventional budget deficit on each basis is defined as the difference between total government expenditure (including interest payments on public debt but excluding any amortization payments) and total cash receipts (including taxes and non-tax revenues plus grants, without loans). It does not, however, provide a direct measure of monetary expansion nor of the pressure as a result of increased demand for financial instruments in the short-term markets.

Keynes (1924) advised that governments should use deficit financing as a way to stimulate demand in their respective economies in times of recessions and depressions.
He further states that the increased size of the market, due to government deficits, can stimulate the economy by raising business profitability and spurring optimism, which encourages private fixed investment in factories, machines, and the like to rise. This accelerator effect stimulates demand further and encourages rising employment. There is emerging consensus that deficits may be unacceptable and unwanted but they are a necessary evil.

Smith (1776) argues against deficit spending, stating that households should not run deficits. He argues that one should have money before one spends it for prudence and that what is correct for a household is correct for a nation and its government. A further argument is that debts must be repaid, and thus it is burdening future generations to run deficits today, for little or no gain. Baker (2008) agrees with this argument and argues that deficit spending today will require increased taxation in the future, thus burdening future generations. This view supports a balanced budget approach where government expenditure matches its ordinary revenue streams. It is however important to note that most of the resources required for public spending is raised each year through taxation, it is rare for any modern budget to balance in any one year.

Ouanes and Thakur (1997) pointed out that borrowing from the public can be exercised either domestically or internationally. The ultimate domestic purchasers of government debt could be non-bank public or financial institutions including banks. Governments usually issue bonds to match their deficits. They can be bought by its Central Bank through Quantitative easing. They also borrow by issuing securities. Less creditworthy countries sometimes borrow directly from a supranational organization such as the World
Bank or international institutions. Otherwise the debt issuance can increase the level of public debt, private sector net worth, debt service (interest payments) and Interest rates.

Agenor and Montiel (1999) contend that measurement of budget deficit raises conceptual and practical issues, which are compounded by the lack of uniformity in usage by countries. They argue that the conventional budget deficit can be measured on cash basis or an accrual (or payment order) basis. In the first case, the deficit equals the difference between total cash flow expenditure and fiscal revenue. In the second case, the deficit reflects accrued income and spending flows regardless of whether they involve cash payment or not. Accumulation of arrears on payments or revenue is reflected by higher deficit when measured on an accrual basis compared with a cash-based measure.

Catao and Terrones (2003) found that there is a strong positive relationship between fiscal deficits and inflation among high-inflation and developing country groups, but not among low-inflation advanced economies. They found that 1 percentage point reduction in the ratio of fiscal deficit to Gross Domestic Product (GDP) typically lowers long-run inflation by 1.5 to 6.0 percentage points, depending on the size of the inflation tax base.

Miller (1983) points that fiscal deficit in all cases (whether monetized or not) lead to generate inflationary pressure in the economy. Fischer (1989), by analyzing the relationship between budget deficit and inflation in different countries found that the countries with high inflation have strong relationship with budget deficit. He noted that high inflation has reducing effect on tax revenue which is known as the Tanzi-Olivera Effect. He further states that high rate of inflation increases budget deficit by declining revenue.
Shabbir and Ahmed (1994) found that budget deficit has a positive and significant effect on inflation, independent of its indirect effect via money supply that in this case turns out to be minor or negligible. Closer home, Kenya has experienced extreme drought conditions across the country affecting food supply hence resulting in famine occasioning increase in prices of food and raw materials resulting in high commodity prices.

Chaudhary and Ahmad (1995) found that domestic financing of the budget deficit, particularly from the banking system, is inflationary in the long run. The results provide a positive relationship between budget deficit and inflation during acute inflation periods of the seventies. The general conclusion is that the execution of monetary policy is heavily dependent on the fiscal decisions made by the government. In order to control inflationary pressure, government needs to cut the size of budget deficit.

According to Easterly and Schmidt-Habbel (1994) over the medium term, deficit financing leads to higher inflation, higher real interest rates or increased repression of financial markets. They further found that fiscal deficits spill over into external deficits, leading to appreciation of the real exchange rate. In addition, they found that good fiscal management preserves access to foreign lending and avoids the crowding out of private investment, while growth stabilizes the budget and improves the fiscal position.

1.1.1 Fiscal Policy

According to O' Sullivan and Sheffrin (2003) fiscal policy is the use of government revenue collection (taxation) and expenditure (spending) to influence the economy. The two main instruments of fiscal policy are government taxation and expenditure. They further contend that neutral fiscal policy is usually undertaken when an economy is in equilibrium where Government spending is fully funded by tax revenue and overall the
budget outcome has a neutral effect on the level of economic activity and also that expansionary fiscal policy involves government spending exceeding tax revenue, and is usually undertaken during recessions resulting into a fiscal deficit and finally contractionary fiscal policy occurs when government spending is lower than tax revenue, and is usually undertaken to pay down government debt.

Filip (2002) observes that monetary financing in which the governments resort to issuing of new money in order to finance the surplus of public expenditures by putting into circulation more money than are normally necessary, while the quantity of goods and services that are subject to transactions is considered invariable is inflationary. This issuing of money without real covering in order to finance budget deficit, he states, has in the fore-ground results in increasing level of prices.

Further, according to Fischer and Dornbusch (1997) the increase of the level of prices, at a given level of the individuals and organizations’ nominal income will cause the reduction of their real income, in other words a decrease in the purchasing power of these persons. In this context, an important effect of money issuing for financing the budget deficit is to redistribute a part of the purchasing power of the income holders, both individuals and legal entities, at the government’s disposal, which makes use of the additional stock of money in order to buy goods and services or to make payments for public consumption. This way, the government can spend more resources as the population spends less.

1.1.2 Budget Deficit

Burda and Wyplosz (1995) states that budget deficits occur when a government’s expenditures exceed the revenue that it generates. Further, they argue that the total deficit
which is often called the fiscal deficit or just the 'deficit' is the primary deficit plus interest payments on the debt. They define primary deficit as the difference between current government spending on goods and services and total current revenue from all types of taxes net of transfer payments. A broader definition of government debt may consider all government liabilities, including future pension payments and payments for goods and services the government has contracted but not yet paid.

Mishkin (2003) states that Government debt is a method of financing operations, however, it is not the only method. Governments can also create money to monetize their debts, thereby removing the need to pay interest. But this practice, also known as quantitative easing simply reduces government interest costs rather than truly canceling government debt.

Krugman (2010) contend that deficit spending is a central point of controversy in economics, with prominent economists holding differing views. The mainstream economists position is that deficit spending is desirable and necessary as part of cyclical fiscal, but that there should not be a structural deficit: in an economic slump, government should run deficits, to compensate for the shortfall in aggregate demand, but should run corresponding surpluses in boom times so that there is no net deficit over an economic cycle – a cyclical deficit only.

Haq (2001) observes that the scope of deficit financing for accelerating economic growth in backward economy is very bright as they are caught in a vicious circle of underdevelopment. They use funds for investment when the resources of the country are not adequate to initiate the processes of take-off hence the need for deficit financing.
1.1.3 Determinants of Fiscal Deficit

1.1.3.1 Debt Service

With inadequate improvement in the repayment capacity of the country, debt has continued to accumulate. Extensive use of borrowing has severe implications on the economy as interest payments consume a significant part of government revenue. In shallow financial markets, the interest cost on domestic debt increases with the debt stock as a large proportion of the debt is held in short term instruments. Further, Egeli (2000) stated that increasing public spending leads to increase in budget deficit and thus concluded that this disequilibrium results from governments’ wrong policies such as using borrowing in order to finance the deficit.

Easterly and Shmidt-Hibbel (1991) in an empirical investigation of ten developing countries found that a low and stable deficit is generally associated with economic growth and high levels of deficits are linked to high interest rates. It shows that an increase in the real interest rates raises the interest payments on debt which worsen the fiscal deficit by increasing debt repayments.

Kuncoro (2011) observes that the issuance of Government Securities needs to be done with such prudence by considering the burden of payment of maturing government securities. He recommends that a careful study on the other burdens of the state budget needs to be more properly calculated and that a decline of the government debt to GDP ratio does not necessarily mean an increase in the government’s financial position.

Fisher (1930) hypothesized that the nominal interest rate could be decomposed into two components, a real rate plus an expected inflation rate. Thus if the inflation expectation
increases, it causes to rising nominal interest rate which leads to the public debt to go up. Interest payment covers the big part of public payment in developing countries.

1.1.3.2 Net Government Expenditure

In general, increase in government expenditure will increase fiscal deficit if revenue is not generated in the same proportion. However, there are other reasons also due to which government expenditure can increase budget deficit even after raise in tax revenue as Gondolfo (2001) noted that in Latin American countries budget deficit and public deficit increase even after rise in the tax revenue due to deficient and inefficient social programs.

Persson and Tabellini (1997) find the political system as determining the volume of the public deficit. According to them the countries with proportional rather than majoritarian and presidential electoral system, countries with coalition governments and frequent government turnovers, and the countries with lenient rather than stringent budget processes face larger deficits and debts as a result of high expenditures. Perotti and Kontopoulous (2002) also found that the more fragmented governments have higher budget deficits.

Alesina and Perotti (1995) emphasized on the role of political factors, social polarization, and institutional factors in determining fiscal deficit of a country. The results of the study leads to important implication that by improving the quality of institutions, creating situations for economic stability and moving towards democratic regimes ensures more stable fiscal deficits and resultantly positive effect on the long term economic growth. However, Roubini and Sachs (1989) have found that coalition governments experience higher budget deficits than one-party, majoritarian governments.
Woo (2003) argued that the political system of a country plays a role in shaping its budget deficits. In general, economic policy (in particular budget policy) is easier to formulate and implement under a presidential system than under a parliamentary system. The reason is that under a presidential system, the government has greater independence and less interference from legislature than under a parliamentary system. Further, de Haan and Strum (1994) have found that the frequency of government changes is positively related to budget deficits. These findings suggest that political factors might play an important role in shaping budget deficits.

1.1.3.3 Ordinary Tax Revenue

Tanzi (2000) examined the relationship between tax revenue and budget deficit in Latin American countries. He found that in Latin American countries the budget deficit and public deficit increase even after rise in the tax revenue. He stated that this imbalance results from the deficient and inefficient social programs.

Debbie (2004) conducted a study on the relationship between tax policies and government deficit in Kenya and concluded that the tax policy in the country was mainly to blame for the persistent budget deficit and that there still existed a lot of unexploited areas in as far as tax policy was concerned. Further, the tax policy was blamed for the perpetual budget deficit with most people blaming the narrow tax base and compliance issues as the main areas that lack depth in as far as tax policies are concerned. The researcher further sought to find out the measures that could be put in place in order to reduce and consequently eliminate low tax compliance in the country and it emerged that a whopping 81% believed that reduction in the various tax rate would be the panacea towards increased tax compliance in the country.
1.1.3.4 External Revenue Sources (Grants)

Mayr (2008) observes that foreign aid in its various forms (grants & debt relief) from various sources (multilateral development banks, bilateral and NGOs) represents a significant share of revenue in many low-income countries. He notes that public funds provided in form of foreign aid and are suspected to increase moral hazard and induce governments to run into even more debt. He concludes that foreign funds should not be contingent on debt levels. Instead, it could finance a share of a given spending, for example on public services that are conducive to growth such as education, health, or based on measures of outcome, such as improvements in debt management.

Brownbridge and Tumusiime-Mutebile (2007) in their study of the link between foreign aid and budget deficit in Uganda in their analysis on the impact of the increase in the fiscal deficit on macro-economic management and on the sustainability of public finances found that foreign aid increased deficits. On the other hand, Feeney (2007) conducted a study in Melanesia and observed that foreign aid decreased deficits in the 1980s and 1990s.

IMF (2013) shows that fiscal deficits remain high in Sub-Saharan Africa mainly due to the effects of the global economic and financial crisis, rising fuel, food and commodity prices. It also found that fiscal balances weakened in most sub-Saharan African countries during the global crisis, with increases in deficits being partly offset by consolidation efforts as growth rebounded. Further, it states that the global economic crisis has eroded Government coffers of advanced economies that have continually funded expenditures of developing economies through budget supports, development grants and even providing loan revenues. In view of these, countries will need to return to debt levels that are
sustainable in order to manage risks, foster long term growth and create jobs in the coming years.

1.1.4 Deficit financing in Kenya

Historically, the government of Kenya has suffered budget deficits since independence which is mainly attributed to government revenues falling short of expenditure demands due to limited budgetary resources brought about by low economic performance, among other causes. Eli (2010) observes that budget deficits have contributed to the weak economic performance, by accumulating the high public debt and the associated high interest rates.

Medium Term Debt Strategy (2012) envisages raising resources through external borrowing to meet central government budgetary requirements at minimum cost whilst maintaining a prudent level of risk. It encourages the development of domestic debt markets to meet the government’s borrowing requirement to cover the deficits in a manner that supports macro-economic stability for sustainable growth over the medium term.

Domestic borrowing from the early 90s to 2008 was mainly through Government securities, overdraft at the CBK and advances from commercial banks. Government securities comprised of Treasury Bills, Treasury bonds and long-term stocks. During the period, Treasury bills were issued in maturities of 91 days and 182 days, which were non-tradable in the secondary market. Treasury bonds, on the other hand were issued in maturities of between one and ten years, and were tradable in the secondary market. The types of bonds issued in the period were zero coupons, floating rate, fixed coupon discounted, special floating rate, special fixed rate, and fixed rate bonds.
IMF (2011) concludes that Kenya shows greater risk of unfavorable debt developments, especially under a shock to GDP growth, unchanged fiscal policy, or materialization of some contingent liabilities. The sustainability of Kenya’s debt depends on macroeconomic performance and a prudent borrowing strategy. Kenya however faces a low risk of external debt distress, reflecting the limited reliance on external borrowing and an expected improvement in macroeconomic performance.

KPMG (2013) notes that in spite of the numerous austerity measures and the various attempts to widen its tax base, the Kenyan government like most of other developing countries counterparts has over the years been a perpetual casualty of budget deficit, with the 2013/14 budget hitting an all-time high of 1.6 trillion with a deficit of 14.45% of the gross domestic product as compared to 6.8% of GDP in 2011/12 budget, thus an urgent need to address the issue of how best to contain the deficit, hence the need to study the determinants of such fiscal deficits.

1.2 Research Problem
Fiscal deficits have attracted a great deal of attention over the past decade mainly due to the negative consequences such as high inflation as a result of increased money supply by the government to pay off debt, over indebtedness form increased borrowings that has resulted to huge amounts of both principal and interest repayments, decreased sovereignty as a result of Structural Adjustment Programmes (SAPs) by donors and crowding out of the private sector as a result of increased domestic borrowings, all of which have resulted to slowed economic growth in most developing countries.

Fatima, Ahmed and Rehman (2012) conducted a study on consequential effects of budget deficit on economic growth of Pakistan. The objective of the study was to investigate the
true impact of the budget deficit on the economic growth of Pakistan. The sample taken for study comprised of time series data for the period 1978 to 2009. The regression analysis was conducted to ascertain the impact of budget deficit on the GDP. The study showed that budget deficit had a negative impact on economic growth.

Kosimbei (2009) conducted an empirical analysis of budget deficit and economic growth in Kenya. He applied Vector Auto-regression analysis together with annual time series data for the period 1963 to 2007 to evaluate empirical effects of budget deficit on macro-economic performance. He mentions that the source of budget deficit included the level of economic development, growth of revenue, instability of government revenues, government controls over expenditure and the extent of government participation in the economy. The study revealed that budget deficit has a significant effect on private consumption, private investment, money supply (M3), Treasury bill rates, current account and GDP.

From the ongoing discussion, most of the research done on budget deficit have mainly aimed at addressing the adverse effects of budget deficit in the economy whilst pointing out the main variables that contributes to the same but none clearly came out to specifically analyze the aforementioned determinants and its thus under that particular backdrop that this research project gives an analysis of the aforementioned determinants in as far as the Kenya context is concerned.
1.3 Research Objective

The objective of the study was to analyze the determinants of deficit financing in Kenya.

1.4 Value of the Study

The study would be beneficial to policy makers to be able to know the drivers of public deficit expansion which would inform decision making on issues of expenditure management, determination of optimal and sustainable debt levels and inform fiscal policy decisions.

The findings would be a valuable addition to the knowledge bank especially in public finance. Researchers would find this study useful for further discussions and research to further develop on this subject matter.

The study would provide knowledge in public finance, specifically on deficit financing and its underlying determinants. This knowledge would enable them engage better with policy makers on this important subject.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section explores theoretical and empirical literature on fiscal deficits. The purpose of this section is to establish the foundation for the study and identify a framework within which secondary data would be contextualized and interpreted. By exploring existing experiences from Africa and other parts of the world, literature review is also meant to strengthen the findings of the study.

2.2 Theoretical Review

2.2.1 Tax Smoothing Theory

Barro (1979) in his standard tax-smoothing theory argument notes that the government, who is a “benevolent social planner” maximizes the utility of the representative agent, by financing a certain amount of spending in every period through taxes on labor income. He explains public debt in terms of the utility-maximizing choice of a representative citizen where the government is faced with exogenous shocks to anticipated revenues or planned spending, with those shocks usually described as recessions or wars.

He argues that if tax rates are varied in response to such shocks to maintain a balanced budget, the excess burden of taxation will be larger than it would be if taxation were held constant at that level which produced long-term budget balance. According to this tax-smoothing explanation, public debt smooths shock-induced variations in tax rates, and thereby minimizes the excess burden associated with taxation. Tax smoothing implies that governments set tax rates so as to minimize the cost of inter-temporal tax distortions. Given the information available today, the tax rate would be considered as permanent and
would be changed only with new information about future government spending and output.

Barro (1979) further argues that the government’s aim is to keep the tax rate constant. The level of taxes is determined by the inter-temporal budget constraint, which implies that the present value of spending (exogenously given) has to be equal to the present value of taxes. When public deficits result in an increase of the debt, the agents know that the government will need to raise taxes. Therefore, given the distortionary effects of taxation, the optimal strategy of the government is to use budget deficits and surpluses to smooth the economy, given a certain path of spending: deficits occur when spending is temporarily high and a surplus when spending is low. Therefore, according to the model, budget deficits follow economic cycles: low in period of economic growth, high in periods of recession.

Alesina and Perotti (1995) contend that in spite of its validity as a normative theory, the tax-smoothing approach is deficient as a positive theory of fiscal budgets. In fact, this explanation does not answer the questions of why there are cross-country differences and why there has been a debt accumulation in the past years. Positive contributions have searched for political and institutional determinants of budget deficits and public debts.

2.2.2 Government as a ‘Leviathan’ Theory

Brennan and Buchanan (1980) in their theory of Government as a ‘leviathan’ postulates that a government tries to extract an extra rent from its citizens by raising tax revenues and budget deficits in excess of what would be needed in order to finance the provision of public goods. The "leviathan" theory holds that governments try to get control of as much of the economy as possible. Obviously, the leviathan theory is inconsistent with the early
decades of stable government spending. Moreover, this theory also would imply sharp increases in government spending followed by leveling off when the maximum size of government has been reached.

Wagner (1882) stated that there exists a positive correlation between the level of economic development and public expenditure because, in developed countries, the ratio between the amount of total expenditure and income grows both in absolute and relative terms. According to Wagner, this is attributed to three factors. Firstly, due to an augmentation in the fundamental functions of the state as a result increase in population density and urbanization. Secondly, the increasing role of the state as a provider of social welfare particularly education, health and the redistribution of income. And finally as change in technology and the required scale of capital for investment activity, with growing participation of the state in the sectors of production and regulation also serves to increase public expenditures.

2.2.3 Political Theory of Government Debt

Cukierman and Meltzer (1989) developed a theory of budget deficits that focused on the intergenerational redistributive aspect of government debt. They found negative bequest constrained individuals do not mind to transfer resources from future generations to finance present consumption, via negative bequests. These individuals will advocate present tax rate reductions without an accompanying decrease in current government expenditures. Thus, in a democratic political system, the larger the share of bequest-constrained individuals in the population, the more likely it is for the government to run larger deficits. Based on this scenario, they argued that increase in the expected rate of economic growth, the spread of the income distribution or expected longevity tends to
increase the population share of bequest constrained individuals, which will consequently lead to larger budget deficits.

### 2.2.4 Positive Theory of Government Deficit

Alesina and Teballini (1987) developed the positive theory of Government deficit which emphasized that public debt is used strategically by each government to influence the choices of its successors. Thus, the time path of public debt is the result of the strategic interaction of different governments which are in office indifferent periods. This leads to fiscal policies which differ. The theory shows that the equilibrium stock of debt tends to be larger than with a benevolent social planner certain of her future reappointment. Intuitively, disagreement among alternating governments and uncertainty about the elections' outcome prevent the party in office from fully internalizing the cost of leaving debt to its successors.

More generally, the theory suggests that differences in political institutions can contribute to explain the variance in the debt policies pursued by different countries or by the same country at different points in time. According to the results of the model, the equilibrium level of public debt tends to be larger with increased degree of polarization between alternating governments, more likelihood that the current government will not be reappointed and when the government is constrained to provide at least a minimum level of each kind of public good.

Lizzeri (1999) also maintains that strategic deficits can be aimed at voters in order to secure electoral victory in election or in future elections. Persson and Svensson (1989) agree with this theory and argue that strategic deficits can be used by Governments in order to constraint the spending decisions of possible successors. This present the
appealing idea of a stubborn conservative government which leaves high deficits in order to constrain the liberal successor’s public spending.

2.3 Empirical Review

Agnello and Ricardo (2009) undertook analysis of 125 countries for the period of 1980 to 2006 using a system-GNM estimator for linear dynamic panel data. The objective of the study was to assess the source of public deficit volatility by focusing on the role played by political institutions and economic determinants. The study shows that a higher level of political instability (as measured by high number of ministerial turnovers and the larger number of government crises) leads to public deficit volatility. It shows that an additional cabinet change raises deficit volatility by 15% while a new incoming signal of government crisis increases it by 45% which is magnified in case of hyper-inflation. The study shows that when democracy increases by one point, the public deficit volatility falls by 3%.

Tiwari and Kumar (2011) examined the linkage between fiscal deficit and inflation in India for the period 1970 to 2009 using the linear multiple regression models. Their main objective was to examine the factors that are responsible for increasing fiscal deficit in India, by taking into account all factors that can affect the status of fiscal deficit. The study finds that inflation is not at all cause of fiscal deficit in India. However, government expenditure and money supply are found to be important determinants of mounting fiscal deficit.

Kaplanoglou and Rapanos (2013) evaluate the evidence from the decade preceding the outbreak (2001 to 2009) of the fiscal crisis in Greece. The objective of their study was to shed some light on specific factors behind deviations from fiscal plans. The study shows
that Greece accumulation of public deficits was a choice of governments and the result of failures of fiscal institutions as there were no mechanisms in place, either internal or external, that would effectively pinpoint the systematic deviations of public revenues and expenditures from the targets set. In this respect, the fundamental reason underlying poor fiscal performance in Greece is weak fiscal institutions and inadequate public financial management.

Frimpong and Oteng-Abayie (2006) studied the impact of external debt on economic growth in Ghana for the period 1970 to 1999 using Johansen–Juselius multivariate co-integration approach. The objective of the study was to estimate the impact of key debt variables as determinants of GDP growth in Ghana. The study found that over the long run, external debt inflows, debt servicing and foreign direct investment affect GDP growth behavior. It showed that an increase in external debt servicing decreases GDP growth and an existence of crowding out effect in Ghana. This result is an indication that high debt accumulation acts as a disincentive to capital formation and encourages capital flight. This study justifies the adoption of Highly Indebted Poor Countries (HIPC) and Low-Income Countries (LIC) debt relief initiative because of future debt servicing problems.

Christensen (2005) discusses the role of domestic debt markets in sub-Saharan Africa (SSA) based on a new data set covering 27 SSA countries during the 20-year period (1980 to 2000). The objective of this study was to discuss long-term developments and identify key characteristics of African domestic debt markets. The study found that domestic interest payments for sub-Saharan African countries increased from 49.7 percent of total debt service between 1990 and 1994 to 51.9 percent between 1995 and
The proportion of domestic interest payments to government revenues increased from 10.9 percent to 11.5 percent during the period while the ratio of the interest payments to GDP increased from 2.0 percent to 2.3 percent. The significant domestic interest burden is a result of relatively high domestic interest rates. Various comparisons of the cost of domestic versus foreign borrowing suggest that domestic interest rates are much higher than foreign ones.

Ezeabasili, Mojekwu and Herbert (2012) studied the relationship between fiscal deficits and inflation in Nigeria using data for the period 1970–2006. They adopted a modeling approach that incorporates co-integration techniques and structural analysis. The results revealed a positive but insignificant relationship between inflation and fiscal deficits in Nigeria. They did not also find any strong evidence linking past levels of fiscal deficits within inflation in Nigeria during the period. Rather, we report a positive long run relationship between money supply and inflation in the Nigerian economy, suggesting that money supply is pro-cyclical and tends to grow at a faster rate than inflation rate.

Maana, Owino and Mutai (2008) analyzed the development in public domestic debt and its impact on the Kenyan economy for the period 1996 to 2007 using the Barro growth regression model. The objective of the study was to make policy recommendations for improving the management of the debt. The study finds that the composition of Kenya’s public debt has shifted in favor of domestic debt and that a significant rise in domestic debt during the period resulted in higher domestic interest payments which present a significant burden to the budget. However, due to a considerable level of financial development in Kenya, the study found no evidence that the growth in domestic debt crowds-out private sector lending in Kenya.
Putunoi and Mutuku (2013) analyzed the development in public domestic debt in Kenya and its impact on the economy for the period 2000 to 2010 using the long run relationship between the variables investigated using the Engel-Granger residual based and Johannes VAR co-integration tests. The objective of this study was to investigate the effects of domestic debt on economic growth in Kenya and making policy recommendations for improving the management of domestic debt. The study shows that domestic debt expansion in Kenya, for the period of study, has a positive and significant effect on economic growth. In view of this, the study recommends that the Kenyan government should encourage sustainable domestic borrowing provided the funds are utilized in productive economic avenues.

Gongera, Mindila, Nyakwara and Ouma (2013) studied how inflation, tax policy and government expenditure affects reduction of budget deficits in Kenya using a descriptive research design. The objective of the study was to evaluate the economic strategies and measures that the Government can put in place to reduce budget deficits. The study found that the tax policy and the government expenditure were the main causes of the persistent budget deficits in Kenya. Further, the study found out that inflation was heavily contributing to the budget deficit in Kenya hence recommendable that the government initiates various fiscal and monetary policies to contain inflation to manageable levels.

2.4 Summary of Literature Review
A review of the literature reveals that a large number of studies have been conducted on deficit financing however, there is relatively minimal studies in developing countries especially in African countries as compared to the more advanced economies of the world. One key aspect of these studies has been the focus on the effects of deficit
financing and less on the underlying factors influencing deficit financing. A number of factors have been identified as determining the incidence of deficit financing. These factors include debt service, government expenditure, lags ordinary tax collection, and the decline in external revenues as a result of global economic and financial meltdown among others.

Expenditure on debt service has been found to increase the level of indebtedness consequently increases the levels of deficits by diverting more tax revenues to servicing existing debts that’s increasing the deficits. The lag in tax collection is shown to be significant, implying that fluctuations in tax collection may also contribute significantly to deficits. External revenues have been shown to be a major determinant in deficit financing. These studies also show that the global economic and financial crisis reduced the levels of budget supports from developing nations thus eroding financing to developing countries budgets as well as the accompanying externalities.

Our study aims to find out whether the factors stated have continued to have a major impact on the level of fiscal deficits as experienced in Kenya over time. Based on our findings, we wish to suggest policy recommendations to enhance a dynamic management of the level of indebtedness.

Most deficit financing studies have focused more on just one cross section data set while others have employed more than one cross section data set to explain the effects of deficit financing. Given the fact that the economy of different countries is never stagnant, it follows that our data set will enable us determine the underlying factors that have continued to determine the levels of budget deficits and the financing thereof in Kenya.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter describes the methods that was employed to provide answers to the research objectives in this study as listed in chapter one. The following aspects of research methodology are discussed; research design, target population, sampling procedure, research instruments, validity and reliability, data collection procedure and data analysis.

3.2 Research Design
This study adopted exploratory design which attempted to examine the causes of fiscal deficit. The study uses both direct causal relationships such as the relationship between government revenue, debt service, government expenditure and fluctuations in external resources and fiscal deficits Exploratory Survey design was preferred in this case because of its ability to narrow down the scope of the research and to produce statistical information about aspects of fiscal deficit that achieves the objective of this study and for economical completion of the research study.

3.3 Population of the Study
The study utilized data from mainly the Central Bank of Kenya, The National Treasury and the Kenya National Bureau of Statistics. The study covered a period of 10 years from 2003 to 2012 which represented the sample size for the study. Judgmental/Purposive sampling was used to select the named Government organs and the period of the study.

3.4 Data Collection
Government expenditure was derived from the quarterly budget outturns generated by the Ministry of Finance and adjusted to add up to the annual data published in the annual Economic Surveys published by the Kenya National Bureau of Statistics (KNBS).
Government revenue was derived from the quarterly budget and economic reviews generated by the Ministry of Finance and as audited by the Auditor General in the final books of accounts books. Data on Government debt service was obtained from the Annual Public Debt Reports over the years and as reported on by the Central Bank of Kenya publications.

Government expenditure data was obtained from the yearly final total expenditures, revenue was extracted from the yearly audited revenues and data on debt service shows the yearly totals for both external, domestic and debt repayments.

3.5 Data analysis

The study used multivariate statistical model based on the IMFs 1980 Manual on Government Finance Statistics (GFS) that represents the fiscal deficit as \( \{(\text{revenue} + \text{grants}) - (\text{expenditure on goods and services} + \text{transfers}) - (\text{lending} - \text{repayments})\} \). This is consistent with macro-economic literatures definition of fiscal deficit.

Model specification

The multivariate Linear Regression model specification examined variables like growth in government expenditure, variations in ordinary revenue receipts, external resources and growth in debt service that had been shown empirically to be robust determinants in this relationship in analyzing their impact on the deficit.
The Analytical Model

The approach was based on the accounting rules that link the fiscal and debt conditions simplified as:

$$D = \alpha + \beta_1 X_1 + \beta_2 X_2 - \beta_3 X_3 - \beta_4 X_4$$

Where;

- $D$ is the fiscal deficit financed by Debt
- $X_1$ = Government Ordinary Revenues
- $X_2$ = External Revenue Sources
- $X_3$ = Net Government Expenditures (less debt services)
- $X_4$ = Debt Service
- $\alpha$ = Models constant
- $\beta$ Represents the parameters to be estimated by the model

This analytical model explains the relationship between deficit financing ($D$) which is the independent variable and how it is influenced by dependent variables such as government ordinary revenues ($X_1$), grants from external sources ($X_2$), and net government expenditures ($X_3$) and total debt service with includes both principal payments and interest payments ($X_4$).
CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction
This chapter presents analysis and findings of the study as set out in the research objective and research methodology. The study findings are presented on the objective of the study which was to analyze the determinants of deficit financing in Kenya. The data was gathered exclusively from the secondary source which included; Ministry of Finance, Kenya National Bureau of Statistics (KNBS) and Central Bank of Kenya publications.

4.2 Data Presentation
4.2.1 Government Ordinary Revenues
The study sought to find out the trend in Government Ordinary Revenues received in Kenya during the study period. The findings were as shown in the appendix I and figure 4.1 below;

Figure 4.1: Government Ordinary Revenues
From the findings presented above, the study established that Government Ordinary Revenues had been continuously increasing over the study period. In 2002/2003 financial year the Government Ordinary Revenue was 210.8 million shillings. This increased to 255 million shillings in 2003/2004, followed by a further increase to 289.9 million shillings in 2004/2005 financial year. In the 2005/2006 financial year, Government Ordinary Revenue increased to 311.3 million shillings, followed by further increase to 373 million shillings and then to 432.2 million shillings in the 2006/2007 and 2007/2008 financial year respectively. Government Ordinary Revenue increased further to 487.9 million shillings in 2008/2009, followed by a further increase to 543.8 million shillings in 2009/2010 then 660.8 million shillings in 2010/2011. As at the end of 2011/2012 fiscal year, Government Ordinary Revenue had increased to 719.1 million shillings. This implied that the Government Ordinary Revenue had been on increase over the period of study.

4.2.2 External Revenue Sources

The study also sought to establish the trend of revenue obtained from external sources in Kenya over the study period. The data findings are presented in appendix I and Figure 4.2 below;
From the findings presented above, the study found out that in the 2002/2003 financial year the revenue collected from external sources was 14.9 million shillings. This increased to 16.2 million shillings in 2003/2004 followed by a decrease to 14.9 million shillings in 2004/2005. In 2005/2006 financial year the revenue obtained from external sources increased to 20.1 million shillings followed by a decrease to 15.5 million shillings in 2006/2007. In 2007/2008 financial year, revenue from external sources rose to 25.4 million which was the highest amount of revenue collected over the study period. The revenue however decreased sharply to 18.1 million shillings in 2008/2009 followed by a further decrease to 17 million shillings as at the end of 2009/2010 financial year. This trend however changed slightly whereby the revenue increased in 2010/2011 to 18.8 before a further decline to 15.3 million shillings at the end of 2011/2012 fiscal year which
was the lowest revenue recorded over the study period. As observed in the above trend, the revenue obtained from external sources had been on decrease towards the end of the study period.

**4.2.3 Net Government Expenditures (less Debt Services)**

The study also sought to find out the trend of Net Government expenditure less debt service in Kenya over the study period. The data findings are presented in appendix I and Figure 4.3 below;

**Figure 4.3: Government Expenditures less debt services**

![Graph showing expenditure less debt service from 2002/2003 to 2011/2012]

From the findings presented above, net government expenditure increased continuously over the study period. As at 2002/2003 financial year, net government expenditure was 205.6 million shillings after which it increased to 231.2 million shillings in 2003/2004, follow by a further increase to 264 million shillings in 2004/2005 financial year. In the 2005/2006 financial year, net government expenditure increased to 338.6 million
shallings, followed by further increase to 364.4 million shillings in 2006/2007 and then to 469.7 million shillings in 2007/2008 financial year. Net government expenditure further increased to 526.3 million shillings in 2008/2009, followed by a further increase to 635 million shillings in 2009/2010 then 698.7 million shillings in 2010/2011. As at the end of the study period, net government expenditure was 802.3 million shillings. This implies that the net government expenditure has been on a continuous increase.

4.2.4 Debt Service

The study also sought to establish the Debt Service trend in Kenya over the study period. Appendix I and Figure 4.4 below depicts the trend obtained from the data findings.

**Figure 4.4: Debt Service**

![Debt Redemption Graph](image)

As at the financial year 2002/2003, debts service was 58.5 million shillings. This reduced to 51 million shillings in 2003/2004 before a further reduction to 39.4 million shillings.
This was the minimal debt service recorded over the study period. In the 2005/2006 financial year, debt service increased to 44.2 million shillings, followed by further increase to 55.2 million shillings in 2006/2007 and then to 65.1 million shillings in 2007/2008 financial year. Debt service further increased at a slow rate to reach 67.5 million shillings in 2008/2009, followed by a further increase to 81 million shillings in 2009/2010 then 98.4 million shillings in 2010/2011. As at the end of the study period, debt service was 113.6 million shillings. This is shows that the government debts service had been on an increase hence increasing expenditures and subsequently the deficit.

4.2.5 Fiscal deficit

The study also sought to find out the trend in fiscal deficit in Kenya over the study period. Figure 4.5 and appendix I below depicts the trend obtained from the data findings.

Figure 4.5: Fiscal deficit
The study findings established that fiscal deficit as at financial year 2002/2003 was 38.6 million shillings. This reduced to 11.3 million shillings in 2003/2004. As at the end of 2004/2005 financial year, the there was no deficit. However as at the end of 2005/2006, the deficit increased rapidly to 51.5 million shilling which was followed by a reduction to 31 million shillings in 2006/2007 before increasing to 77.2 million shillings in 2007/2008 financial year and then to 89.8 million shillings in 2008/2009. this deficit further increased sharply to 157.8 million in 2009/2010 million shillings, then slightly reduced to 137.6 million shillings in 2010/2011 after which it further increased to 181.3 as at the end of 2011/2012 financial year.

4.2.6 Regression Analysis

In order to establish the relationship between the relationship between the independent variable which included; debt service, external revenue sources, government ordinary revenues, net government expenditures, this study conducted a multiple regression analysis. The findings were as shown in the table 4.1 below:

Table 4.1: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.997a</td>
<td>.995</td>
<td>.990</td>
<td>6.16582</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Debt Service , External Revenue Sources, Government Ordinary Revenues, Net Government Expenditures

From the table above, the Coefficient of determination ($R^2$) obtained was 0.995. Coefficient of determination explains the percentage of variation in the dependent variable that is explained by the independent variables or extent to which changes in the
dependent variable can be explained by the change in the independent variables.

From the analysis, the independent variable studied here had a strong relationship with fiscal deficit as explained by adjusted $R^2$ of 0.995. This implied that the relationship between fiscal deficits and the predictor variables which included debt service, external revenue sources, government ordinary revenues and net government expenditures was strong.

The study further conducted an Analysis of Variance to check on the significance of the Model. The findings were as shown in table 4.2 below:

**Table 4.2: Analysis of Variance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4</td>
<td>8922.996</td>
<td>234.709</td>
<td>.000 a</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>5</td>
<td>38.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35882.069</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Debt Service, External Revenue Sources, Government Ordinary Revenues, Net Government Expenditures

b. Dependent Variable: fiscal deficit

From the ANOVAs results, the probability value obtained was less than $\alpha=5\%$ which implied that that the regression model was significant in predicting the relationship between fiscal deficit and the predictor variables. The F calculated at 5% level of significance was 234.709. Since F calculated is greater than the F critical = 4.05058, this shows that the overall model was significant.
Table 4.3: Coefficients

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>20.884</td>
<td>16.651</td>
<td>1.254</td>
<td>.265</td>
</tr>
<tr>
<td>Government Ordinary Revenues</td>
<td>.848</td>
<td>.107</td>
<td>2.320</td>
<td>7.939</td>
</tr>
<tr>
<td>External Revenue Sources</td>
<td>.558</td>
<td>.708</td>
<td>.029</td>
<td>.787</td>
</tr>
<tr>
<td>Net Government Expenditures</td>
<td>-.877</td>
<td>.090</td>
<td>-2.884</td>
<td>-9.691</td>
</tr>
<tr>
<td>Debt Service</td>
<td>-1.093</td>
<td>.244</td>
<td>-.412</td>
<td>-4.477</td>
</tr>
</tbody>
</table>

a. Dependent Variable: fiscal deficit

In order to establish the relationship between Economic Growth and the predictor variables, the researcher conducted a regression analysis. The regression equation (D =α + β1X1- β2X2+ β3X3- β4X4) obtained was:

\[ D = 20.884 + 0.848X_1 + 0.558X_2 - 0.877X_3 - 1.093X_4 \]

From the regression results above, the findings show that the minimum fiscal deficit if all other variables were held constant would be 20.884 million shillings. In addition, the study established that a unit change in government ordinary revenues would lead to 0.848 change in the fiscal deficit; a unit change in external revenue sources would lead to 0.558 change in the fiscal deficit; a unit change in external revenue sources would lead to -0.877 change in the fiscal deficit; while a unit change in debt redemption would lead to -1.093 change in the fiscal deficit.
From the above analysis of the betas, it can be inferred that government ordinary revenues contributes the highest effect to the deficit followed by external revenue sources.

All predictor variables were significant as the probability values corresponding to these predictor variables were less than $\alpha=5\%$. External revenue sources were however an exception as its significance value was above 0.05.

4.3 Summary and Interpretation of Findings

With increase in the global economic and financial crisis among countries around the world the growing economies have been faced with increasing challenges in fiscal deficit financing. With inadequate improvement in the repayment capacity of the country, debt has continued to accumulate. As such, it becomes increasingly important to understand the nature and significance of selected determinants of deficit financing.

The findings established that in Kenya there exists a high fiscal deficit in most of the period of study. These findings coincide with those of IMF (2013) which discovered that fiscal deficits remained high in Sub-Saharan Africa mainly due to the effects of the global economic and financial crisis, rising fuel, food and commodity prices. Fiscal deficit as at 2002/2003 financial year was 38.6 million shillings after which it reduced to 11.3 million shillings in 2003/2004. As at the end of 2004/2005 financial year, the there was no government deficit. Since then, the fiscal deficit continuously increased over the subsequent years. By the end of 2011/2012 fiscal year, the fiscal deficit was 181.3 million shillings. The findings of this study concur with that Roubini and Sachs (1989) which found that coalition governments experience higher deficits than one-party,
majoritarian governments as this study established a continuous increase in fiscal deficit since 2008/2009 when the government coalition came into place.

The study findings revealed that revenue obtained from external sources had been reducing over the recent years. Global economic crisis has eroded Government coffers of advanced economies as they have continually funded expenditures of developing economies through budget supports, development grants and even providing loan revenues Kenya being inclusive. The study established that in the 2002/2003 financial year, the revenue collected from external sources was 14.9 million shillings. By the end of 2007/2008 financial year, revenue from external sources rose to 25.4 million which was the highest amount of revenue collected over the study period. Since then, the revenue continuously decreased to 15.3 million shillings at the end of 2011/2012 fiscal year which was the lowest revenue recorded over the study period.

Government expenditure is an important determinant of mounting fiscal deficit. Increasing government expenditure leads to increase in fiscal deficit if revenue is not generated in the same proportion. Expenditure on debt service has led to increased level of indebtedness and consequently increasing the levels of deficits by diverting more tax revenues to servicing existing debts that’s increasing the deficits. The study findings established that government expenditure less debt service increased continuously over the study period. As at 2002/2003 financial year, government expenditure less debt service was 205.6 of which it increased to 802.3 million shillings as at 2011/2012 financial year which was the end of the study period. This study established there government expenditure influenced the fiscal deficit and that that increasing government expenditure resulted to increase in financial deficits deficit. These findings are consistent with those
of Tiwari and Tiwari, (2011) who established that government expenditure and money supply were important determinants of mounting fiscal deficit.

The study findings revealed the debts were increasing over the recent years compared to the past years whereby it was declining. This showed a negative performance on the debt service process. As at the financial year 2002/2003, debts were 58.5 million shillings of which they reduced to 39.4 million shillings by the end of 2004/2005. Since then, the government debts continuously increased to 113.6 million shillings as at the end of 2011/2012 fiscal year. These findings are in agreement with that of Maana, Owino and Mutai (2008) who established that Kenya’s public debt had been increasing.

The study findings further revealed that government ordinary revenues had been continuously increasing over the study period. By the end of 2002/2003 financial year, the government ordinary revenues was 210.8 million shillings after which it continuously increased over the subsequent years to close 719.1 million shillings by the end of 2011/2012 fiscal year.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter presents the summary of key data findings, conclusions made from the findings highlighted and policy recommendations. The conclusions and recommendations drawn are in quest of addressing research objectives which was to analyse the determinants of deficit financing in Kenya.

5.2 Summary
With regard to the government ordinary revenues the study findings revealed that the ordinary revenue had been continuously increasing over the study period. As at 2002/2003 financial year the government ordinary revenues was 210.8 million shillings. The revenue increased to 719.1 million shillings as at the end of 2011/2012 fiscal year. The study findings further revealed that ordinary revenues grew slower in 2005/2006 and 2011/2012 fiscal years whereby the revenue grew by 7.38% and 8.82% respectively.

On external revenue sources, the study findings established that the revenue from external sources has been declining over the recent years. During the 2002/2003 financial year the revenue collected from external sources amounted to 14.9 million shillings. By the end of 2007/2008 financial year, this revenue had increased to 25.4 million. This revenue decreased over years to 15.3 million shillings as at the end of 2011/2012 fiscal year.

The study findings revealed that net government expenditure as at 2002/2003 financial year was 205.6 million shillings which increased gradually to 802.3 million shillings as at
the end of the study period. The study findings further show that the government expenditure in Kenya was high.

With regard to the debt redemption, the study findings revealed that debts had been decreasing over the initial years of the study from 58.5 million shillings in 2002/2003 to 39.4 million shillings in 2004/2005 before the trend reversed. Debts however increased as from the 2005/2006 whereby the debts increased to 44.2 million shillings compared to the previous fiscal year whereby the debts were at 39.4 million shillings.

Fiscal deficit financed by debts reduced from 38.6 million shillings in 2002/2003 to zero by the end of 2004/2005. However, in the subsequent years, the Fiscal deficit increased to 181.3 by the end of 2011/2012 financial year revealing a prevalence of existing high fiscal deficit.

5.3 Conclusion
The main objective of this paper was to study the determinants of deficit financing in Kenya in the period 2003 to 2012 in order to make recommendations on how to mitigate the risks of accumulating unsustainable debt using a modified regression analysis incorporating a fiscal deficit variable. The study found that the determinants under study had significant bearing on the levels of fiscal deficits in Kenya during the period.

The study shows that government ordinary revenues had a gradual increase over the study period, however, this growth is less proportionate to the growth in government expenditure. This study further concludes that there is an inverse relationship between government ordinary revenue and the fiscal deficits.
On the revenue obtained from external sources, the study concludes that this revenue has been reducing over the recent year. Revenue obtained from external sources is inversely related with fiscal deficits whereby an increase in revenue from external sources leads to reduction in fiscal deficits.

This study concludes that government expenditure in Kenya has been increasing over the years and that the government expenditure is high in Kenya. The study further concludes that increase in Government expenditure leads to increase in fiscal debts and vice versa.

The study concludes that debt service has been performing negatively as there has been continuous increase in debts over the years. The study further concludes that there is a direct relationship between debts and the fiscal deficits. The study finally concludes that the fiscal deficit in Kenya has been increasing over the years and that the fiscal deficit is high in Kenya.

5.4 Policy Recommendations
The study has revealed evidence that debt has continuously increased over the study period from as low as Ksh. 697 Billion in financial year 2002/2003 to Ksh. 1,622 Billion in financial year 2011/2012. This represents 49.5% of GDP which is slightly above the recommended 40% of GDP. Since fiscal deficits hinder economic growth as has been shown in the various empirical studies here, this study therefore recommends that the policy makers should come up with policies that will ensure that these deficits are reduced. Based on this empirical evidence, the study makes the following recommendations;
Firstly, the government should institute efforts to channel government expenditure to productive activities to grow the capacity of the economy so that debt does not rise to become unsustainable. This would require funding well appraised and projects to foster economic growth.

Secondly, to mitigate unsustainability of debt, the government should explore other avenues of financing the budget deficit by improving the present revenue base rather than resulting to more domestic borrowing. This can be achieved through initiating tax reforms and also growing the tax base by reviewing the legal framework to introduce stringent and punitive measures aimed at improving on tax compliance.

Thirdly, the government should initiate expenditure reviews with the view of introducing austerity measures on non-productive, non-priority and wasteful expenditure across government. This will ensure that government expenditures are rationalized to match government revenue inflows.

5.5 Limitations of the Study

This study used secondary data generated for other purposes. The measures used may keep on varying from one year to another subject to the prevailing condition hence leading to different interpretations.

The political environment in Kenya has been changing from year to year. The effects of these changes might have had consequential effects on the determinants of Deficit financing.
5.6 Suggestions for Further Studies

Since debt redemption, external revenue sources, government ordinary revenues, and government expenditures less debt services are not the only factors affecting fiscal deficit, further studies should be done to establish the other factors as this would shed more light on fiscal deficit.

The study further recommends that studies should be conducted on the effectiveness of the existing policies in controlling government deficit as this will enable the policy makers to be aware of the effectiveness of the existing policies as well as identifying areas whereby amendments need to be done.
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### APPENDICES

**Appendix I: DATASET**

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Ordinary Revenue (Million KSh.)</th>
<th>Revenue from external sources /Grants (Million KSh.)</th>
<th>Debt Service/Redemption (Million KSh.)</th>
<th>Expenditure Less Debt Service (Million KSh.)</th>
<th>Fiscal Deficit (Million KSh.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/2003</td>
<td>210.8</td>
<td>14.9</td>
<td>58.5</td>
<td>205.6</td>
<td>-38.6</td>
</tr>
<tr>
<td>2003/2004</td>
<td>255</td>
<td>16.2</td>
<td>51</td>
<td>231.2</td>
<td>-11.3</td>
</tr>
<tr>
<td>2004/2005</td>
<td>289.9</td>
<td>14.9</td>
<td>39.4</td>
<td>264</td>
<td>1</td>
</tr>
<tr>
<td>2005/2006</td>
<td>311.3</td>
<td>20.1</td>
<td>44.2</td>
<td>338.6</td>
<td>-51.5</td>
</tr>
<tr>
<td>2006/2007</td>
<td>373</td>
<td>15.5</td>
<td>55.2</td>
<td>364.4</td>
<td>-31</td>
</tr>
<tr>
<td>2007/2008</td>
<td>432.2</td>
<td>25.4</td>
<td>65.1</td>
<td>469.7</td>
<td>-77.2</td>
</tr>
<tr>
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