

**THE EFFECT OF BUDGET DEFICIT ON ECONOMIC GROWTH
IN KENYA**

BY

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DECLARATION

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

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This Research Project has been submitted with my approval as the University of Nairobi Supervisor.

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DEDICATION

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
BOP	Balance of Payments
BPS	Budget Policy Statement
CBK	Central Bank of Kenya
GDP	Gross Domestic Product
GOK	Government of Kenya
IMF	International Monetary Fund
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
MENA	Middle East and North Africa
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
SPSS	Statistical Packages of Social Sciences
USA	United States of America
VAR	Vector Auto Regression
VIF	Variance Inflation Factor
WAEMU	Western Africa Economic Monetary Union

ABSTRACT

Over the past few decades, budget deficits have gained a great deal of scrutiny. This is because most of the challenges facing developing countries have been blamed on it. The study looked at budget deficit link to economic growth in Kenya. The study covered the period 2001 to 2019. CBK publications was the study source of data. The research design used was descriptive and data was analyzed applying the linear model. Budget deficit was the major independent variable and the control variables were; exchange rate, inflation rate and interest rate. Results findings showed that budget deficit and economic growth were positively linked. The strength of the relationship was established to be insignificant. Interest rate, inflation rate and exchange rate association to economic growth was established to be negative. The strength of the relationship for all of the control variables was however non-statistically significant. The adjusted R² for the regression was found to be 29.3 %. This implied that, the independent variable explained only 29.4 % of the changes in the dependent variable while 70.7% of the changes was explained by non-study variables. The model was also found to be fit at 5% significance level. The study recommends that monetary authorities should therefore develop and enforce interest rate policies and inflation rate policies that increase investment and take into account other elements that hinder the progression of investment.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globalization has made developing countries to lose a historically reliable source of income due to trade liberalization in the form of tariff income. In addition, these countries have also struggled to recover lost income despite the tax reform measures that they implemented to bridge these gaps (Velnampy & Jaffna, 2013). This situation gives rise to a budget deficit which poses a challenge to the long-term growth of any economy due to its effects such as: rising inflation, currency devaluation, declining gross domestic product and fiscal adjustment (Kelikume, 2016). Like every other developing country, Kenya also experiences a budget deficit due to low resources owing to low tax revenues, low salaries and low savings (Kosimbei, 2009).

Budget deficits reduction should be implemented as a way to improve the economic status and as a suitable plan to increase social stability for policymakers (Eisner, 1986). This is the Keynesian view of a budget deficit. Budget deficit, the theory further states, is positively linked to an economy's actual growth (Eminer, 2015). Ricardian theory of equivalence postulates that budget deficit is as a result of increased government expenditure, which can be settled immediately or in future periods. Therefore, the tax cuts created by a budget deficit have no impact on spending and savings according to this proposition (Mangio, 2004). Neoclassical theory notes that the governments increased demand for loanable funds would distort the degree of private investment as a consequence of the interest rate rising (Van & Sudhipongpracha, 2015). Declining private investment would certainly lower the economic growth rate.

The split between recurrent and development expenditure in the financial year 2019/2020 was 64 percent and 36 percent respectively (World Bank, 2019). This shows that far more spending goes to recurrent items like wages, operations and other day-to-day expenditures within the different government institutions, leaving only 36 percent for developmental projects including repayment of debt (Odongo, Odhiambo & Ombok, 2019). Since the Kenya Revenue Authority (KRA) missed the Sh1.65 trillion target, the government is likely to continue borrowing as well as pursue new tax proposals so as to plug any budget deficits (Odongo et al., 2019)

However, more trouble emerges when the Kenya finds itself with a net foreign borrowing standing at Sh 3 trillion as at June 2019 and domestic borrowings projected at Sh8 trillion. Also, while the devolved governance structure in Kenya is a good thing, the 47 counties may not be able to consistently meet the expenditure required to maintain these governance structures. Reports by the controller of budget revealed that the recurrent expenditure of the counties take the lion's share of devolved funds at the expense of their development expenditure (Akinyi, Odunga & Opuodho, 2018).

1.1.1 Budget Deficit

Sill (2005) posits that any entity's expenditure that exceeds its income or revenues is known as a budget deficit. The shortfall extends on to the next financial year, in the absence of revenue from foreign sources. Kuncoro (2011) opines that, if government expenditure surpasses its revenues, then a country has a budget deficit. In other words, a budget deficit negates the amount of public savings. A budget deficit can also be triggered by a government spending more than the taxes it raises. Reduction in the tax charges can also lead to a deficit if there is no reduction in expenditure to offset the

decrease in revenue (Rahman, 2012). In economic downturns, deficits will increase if the government attempts to spend in order to stimulate economic growth. In this scenario, deficits increase as the government significantly raises expenditures, whereas revenues are decreasing drastically (Antwi, Zhao & Emire, 2013). Unplanned spending may also trigger a budget deficit: Natural disasters may not only damage properties, but also hinder or delay economic activities resulting in less taxable profits from businesses (Rahman, 2012).

Eli (2010) opines that funding the economy's budget deficit will increase efficiency and add value, but may also burden the economy: Budget deficit financing is only effective when capital goods and productive resources are spent but ineffective when it relies on recurrent expenditure thus becoming a burden to the society. Budgets deficits may be financed by tax collections, government borrowings, donor funds and /or money printing (Fatima, Ahmed & Rehman, 2012). Budget deficits funded through sale of bonds to the private sector impact on the bond prices negatively, driving up interest rates as a result.

Budget deficit funding by tax financing means that an increase in government spending is funded by a related rise in the economy's tax revenues. Such a policy works by adversely impacting disposable income and thus private spending and expenditure (Menjo & Kotut, 2012). Another method for funding a government budget deficit is through money financing (Pechman, 2004). The central bank prints money and disburses to the government. The government has no obligations to pay interest or repay the principal amount on the disbursed amount. Aggregate demand is driven by government spending, and the currency in circulation therefore often in the economy.

This leads to growth of private sector financial wealth and also increases the broad money supply (Kosimbei, 2009).

1.1.2 Economic Growth

Economic growth is the increase / rise in the capacity and ability of the economy over a period of time to generate products and services (Barro & Salai, 2003). Economic growth is one of the measures of determining how well an economy is doing and how healthy an economy is at a given time (Raworth, 2017). It is also referred to as a rise in the productive ability of a country. In country where economic growth is high, there is improved living standards, better infrastructural facilities and fast adoption of technology in operations. There are also more employment opportunities (Odongo, Odhiambo & Ombok, 2019).

Economic growth can be expressed either in relative or absolute quantities per capita (Huang & Nathaniel, 2014). Gross domestic product is the most preferred economic growth measure because it factors in the economic yield of a country (Mijiyawa, 2013). It represents the value of finished products (good and services) produced in a country over a specified annual period (Easterly & Levine, 2016). It includes all goods as well as services that nation-wide enterprises sell to their consumer regardless of whether the trade is conducted domestically or in a foreign country (Arjomand, et al., 2016). A higher GDP would therefore mean that the economic growth is exponentially improving.

Another way of calculating economic growth is by Per capita income, when population grows faster than national income then the economy will inevitably decline. Therefore, the calculation includes per individual income divided by population which is national income. Consumption per capita is another measure of economic growth (Institute of Economic Affairs, 2014). This effectively distinguishes between the percentage of income spent on savings and the percentage spent on spending (Maria, 2012). High saving rates can lead to recessionary conditions particularly in developed nations. Overall, undue focus on cost savings for the manufacture of basic goods would have an adverse impact on well-being. This study will employ gross domestic product to measure economic growth.

1.1.3 Budget Deficit and Economic Growth

A nation encounters a budget deficit if government spending exceeds its revenues or when public savings are negative, this situation may harm a country's economic growth (Wallis, 2016). Major economic problems that developing countries encountered—such as excessive debts, high inflation, low investment rates and sluggish growth since the 1980s — were due to fiscal deficits being sustained (Tan, 2006). Brender and Drazen (2008) found that a large budget deficit would send detrimental signals to individuals that the government has failed to manage a country's funds well. As a consequence, succession process is likely to be undertaken through elections in order to remove the authorities. Governments that underperformed might not be in a position to take the country to the top level and consequently may be replaced. Therefore, budget deficits will impede economic growth because of the lack of confidence among residents and investors (Akosah, 2013).

As excessive spending continues to increase the level of short-term private demand, many countries are experiencing rapid economic growth due in part to large budget deficits (Ezeabasili & Tsegba, 2012). Nevertheless, huge budget deficits are destroying the rate of economic growth in the long term, as countries are struggling to repay their entire national debt. Aero and Ogundipe (2016) however disagree, they argue that if government spending increases as a result of productive spending such as education and health care, budget deficits can lead to long-run economic growth.

Keho (2010) looked at budget deficit and economic growth in WAEMU nations. The results revealed that budget deficit and economic growth had no causal relationship and this confirmed the Ricardian hypothesis. For countries such as Mali, Burkina Faso and Benin, economic growth and budget deficit relationship is reciprocally causal. This implies that changes in budget deficits caused economic growth to change and vice versa. Begg & Schelkle, (2005) observe that budget deficits may be a poor measure of a government's fiscal policy because deficits can occur due to other reasons other than fiscal policy for example a decrease in demand for investments will reduce output and incomes triggering a decline in tax revenues.

Bose, Haque and Osborn (2007) looked at how budget deficit and economic growth relate by modelling a panel data of 30 developing countries. The results revealed that if government excessively spends on capital, economic growth will be stimulated but, in general, an increase in budget deficit due to aggregate spending results in negative impacts on economic growth. Akosah (2013) determined how Ghana economic growth was associated with budget deficit. Budget deficit link to long term economic growth was found to be negative. This implies that, high budget deficit levels result in low

economic growth levels. The study identified a threshold of 4.0 per cent of GDP as the level that the government should maintain, breach of which the deficit becomes detrimental to the economy.

Aghion and Marinescu (2008) examined cyclical budgetary policy and its association with the economic growth of OECD countries using yearly panel data and discovered that economic growth is positively linked with more counter cyclical budget deficit. Growth increases by 0.11 percentage points, while one percentage point raises the budget deficit's countercyclicality. This positive effect of counter cyclicity diminishes for private credit increases by each percentage point over GDP. A counter cyclical budgetary policy has to be large enough to induce growth. A rise in budget deficit through spending by the government on development has a much greater effect on growth when the economy is weak, and a decrease in spending on development has much smaller effect on GDP when the economy is flourishing (Iya, 2014).

1.1.4 Budget Deficit and Economic Growth in Kenya

In view of the slowdown in global growth, the Government of Kenya has adopted a comprehensive fiscal consolidation policy package that includes fiscal, monetary and financial policies (GOK, 2019). The budget deficit for Kenya for the 2020/21 fiscal year (July-June) was set at 4.9 % of gross domestic product (Budget Policy Statement, [BPC], 2020). The government expects the deficit to drop by the fiscal year 2022/23 to 3.5 per cent of GDP (BPC, 2020). Fiscal deficits, which peaked at 9.1 per cent of GDP in the financial year 2016/17, were driven by higher spending on infrastructure projects such as the Chinese debt-funded railway project. The fiscal gaps were preceded by the

Kenya Revenue Authority (KRA)'s consistent failure to meet the government's lofty income collection targets every financial year (Wanjiru, 2017).

Economic growth is estimated to have slowed to 5.6 percent in 2019, from 6.3 percent a year earlier and well below the government's initial estimate of about 6%: The slowdown was due to lower-than-expected growth in the agriculture sector, which accounts for close to a third of Kenya's annual output (BPC, 2020). Growth is expected to bounce to 6.1 % in 2020, before rising to 7% per annum in the medium term, driven by a focus on sectors with high potential like manufacturing (BPC, 2020). National Treasury data shows that ordinary income has decreased steadily as a share of GDP, moving from 18.1% in 2013/2014 to 15.7% in 2018/2019, forcing the government to turn to further borrowing to plug the budget deficit (Odongo, Odhiambo & Ombok, 2019).

The government remains the largest buyer of goods and services and increased project spending has an impact on economic growth, which is projected this year to be 6%. This has the effect of putting money into private hands by demanding raw materials, which ultimately creates new jobs and sales for Kenya's Corporate (Akinyi, Odunga & Opuodho, 2018). The World Bank recently approved a Sh107 billion (\$1 billion) loan to help Kenya close its deficit and fight the financial shocks of the global coronavirus pandemic (World bank, 2020). Kenya's budget deficit jumped from an original estimate of below 7 per cent to 8.2 per cent of GDP in the financial year until the end of March 2020. Mainly due to the drop in tax collection and the loss of VAT revenue and income tax cuts levied to reduce the effect of coronavirus on workers and companies.

Revenue collection is also expected to drop by Sh43 billion in three months due to the reductions in income tax, value-added tax and sales levy, the International Monetary Fund (IMF) warned after agreeing a Sh78.3 billion (\$739 million) in emergency financing early this year to help Kenya respond to the economic shock caused by Covid-19 (IMF, 2020)

1.2 Research Problem

Over the recent decades, budget deficits have become a major economic problem facing many nations. For developing countries, budget deficits are more commonly seen because these countries are deprived of productive private sector (Arjomand et al., 2016). This results in extension of governmental activities and increases the respective government's economic share, such that spending and government's investment are allocated the largest share of total demand (Afonso & Jalles, 2011). On the revenue side, by contrast, government's has insufficient revenue to offset the enormous expenses. The outcome of such a process is a persistent budget deficit in these countries (Bhoir & Dayre, 2015). Additionally, if a government is dependent on banking resources to finance this deficit, economic inflation may occur and cause internal (domestic) imbalances to be transferred to the external economic sector (Haider e tal., 2016). Importation increases and exports decline when inflation rises resulting in an unbalanced state budget being shifted to the external economy thus causing budget deficits in these countries.

The existence and persistent growth of the budget deficit in Kenya exposes the economy to various vulnerabilities from both within and outside the economy. Following several stimulus measures and multiple efforts to expand the tax base over the years, budget

deficits continue to rise, the budget deficit is currently at 6.3% of GDP in the 2019/20 fiscal year (BPS, 2020). A large budget deficit implies that the government will continue to increase its borrowing and hence the debt levels will continue to grow (Eli, 2010). Kenya's public indebtedness as at the end of 2019 is estimated at 57 percent of GDP, the highest level seen since independence (Annual debt report, 2019). Accumulation of public debt levels will eventually lead to the widening of the current account deficits in Kenya. Kenya's current account deficit stands at 4.3% as at 2019 a decrease from 5% which was recorded in 2018 (Odongo, Odhiambo & Ombok, 2019).

Hassan et al., (2014) established the association that budget deficit has with USA national output. The findings revealed that budget deficit impacted negatively on the national output. Moreover, unemployment was also found to impact negatively on output where there is a budget deficit. Arjomand et al., (2016) using static panel models, attempted to investigate budget deficit link to selected MENA countries economic growth. The findings indicated that government deficit link to GDP and inflation is positive. Another study by Ayajay and Wahid (2016) sought to establish the link between economic growth and Bangladesh budget deficit. Budget deficit link to economic growth was found to be significantly negative. Bhoir and Dayre (2015) analyzed budget deficit effect association to India's economic growth. They employed the least squares techniques and established that budget deficit and economic growth had no relationship.

Locally, Odhiambo et al., (2013) viewed the connection that fiscal deficit and Kenya's economic growth had and he established a positive link. Odongo et al., (2019) established internal deficit financing association with Kenya's GDP. Economic growth

and internal budget deficit financing relationship was found to be positively significant. The study suggests that the government find ways to increase its capacity to raise revenue, in particular by increasing the tax base to minimize the deficit funded by borrowing internally. Musyoka (2013) determined the association that budget deficit had with growth in economic terms. Study findings indicated a negative link which was significant. Osoro (2016) established budget deficit association with Kenya's growth in economic terms. Budget deficit was linked positively to growth in terms of GDP.

The lack of consensus among the different scholars on budget deficit and economic growth is sufficient to warrant this research. In addition to the numerous findings of the studies, much of the recorded empirical proof on budget deficits focused on developed economies, with far less debate and insights on developing economies: Studies conducted in developed countries cannot be generalizable to Kenya a developing country: Hassan et al., (2014) looked at budget deficit in USA while Ayajay and Wahid (2016) investigated budget deficit in Bangladesh. The study outcomes also varied between the different researches. Some researchers established budget deficit impact on GDP to be positive like Odhiambo et al., (2013) while others found a negative relationship like Musyoka (2013).

Others also found no link between budget deficit and economic growth like Bhoir and Dayre (2015) study in India. It is this knowledge gap that this study seeks to fill hence the question: what is the effect of budget deficit on economic growth in Kenya?

1.3. Objective of the Study

To determine the effect of budget deficit on economic growth in Kenya.

1.4 Value of the Study

The results of the study are useful to policymakers because they are able to learn the budget deficit factors that will guide decision-making on expenditure management problems, assess acceptable and sustainable debt levels and guide fiscal policy decisions. It serves as a reference point for the role of budget deficit financing in Kenya's economic development.

Governments have to use fiscal policies, monetary policies or a combination of both to achieve economic growth. The study findings remind policy makers about the long-term impact of a budget deficit on economic development. It informs their future policies and decisions on matters concerning national debt

Lastly, studying a specific country enables the study considers country specific fundamentals: Macro and Micro economic factors hence more conclusive results as compared to regional analysis. Similarly, the study aims to fill the gap of limited literature on budget deficit and economic growth. Finally, using a wider range of data will enable the study build on existing literature.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter entails the theoretical groundwork that forms the basis of the research study, related literature on budget deficit and economic growth, theoretical approach, literature review summary and the empirical review studies on the same, alongside the conceptual framework linking budget deficit and economic growth.

2.2 Theoretical Framework

Theoretical literature is mainly studied under three main schools of thought: Keynesian, Neoclassical and the Ricardian equivalence theories. However, each school has varying propositions on the relationship and have been developed further over time.

2.2.1 Keynesian Theory

Keynesian economists believe that there are unemployed workers, and that there are individuals who have restricted access to credit in an economy. Keynesian proponents opine that deficits originating from the budget influence the economy positively by increasing the GDP (Eminer, 2015). Deficits don't need to crowd out private investment according to this school of thought. This is because increased spending on the deficit contributes to increased aggregate demand, private consumption, and savings at a specific interest rate point, assuming some economic resources are unemployed.

Budget deficit speeds up capital investment and growth as domestic production rises. In this case, aggregate consumption is very responsive to shifts in disposable income due to the presence of a large number of individuals who are limited by myopia and

liquidity (Bernheim, 1989). The researcher suggests that attempts to reduce budget deficits may be counterproductive. He further opines that deficits, regardless of the fact that they raise interest rates, can actually stimulate aggregate savings and investment. Keynesian economists also argue that budget deficit caused by increased government spending in a bid to curb recession impact on GDP positively. That is because increased government jobs potentially lead to increased consumption thus stimulating the economy out of recession (Meier, 2000).

Building on the theory, Haavelmo (1945) and Peston and Baumol (1955) argued that an ambitious fiscal policy that results in budget deficit and public debt raises aggregate demand through a budget multiplier mechanism and through infrastructural development increases aggregate supply. The combined effect drives economic growth. Hence Keynesian theory postulates that deficit association to unemployment is negative; however, budget deficit and actual growth rate of the economy were linked positively. In order to consider this principle, the variable rate of economic growth is implemented as shifts in GDP increase, in order to take this theory into account. Thus, it is important to apply financial policies that lead to higher levels of economic development (Roubini & Sachs, 1997).

2.2.2 Neo-Classical Theory

The theory predicts that individuals who are forward looking are able to look at their consumption pattern and plan in advance over their lifecycles and the economy is also forecast to be at full employment (Lal, 1983). The model is anchored on three main features each playing a significant role in assessing the effects of budget deficits (Solow, 1956). First, each individual's consumption is calculated as a remedy to the

problem of inter-temporal optimization, where individuals can borrow and lend at an arm's length interest rate in the market (Little, 1982). Secondly, an assumption is made that individuals' lifespans is limited and it is presumed that the demand will be open at all times (Johnson, 1971).

The classical economists note that by transferring taxes to the next generations, deficits elevate total lifetime consumption. Deficit in the budget is said to influence an increase in the rate of interest that deter private debt, private borrowing and private investment, thus raising inflation and contributing to a similar increase in current-account deficiencies that ultimately dampen the pace of economic growth by reducing capital (Van & Sudhipongpracha, 2015).

Critics of the theory employ the hypothesis, known as "crowding in," They opine that spending would cause aggregate demand to increase. When the economy grows, the private sector needs to ramp up production and companies find it lucrative to increase their capacity to satisfy the increased market demands, thereby allowing additional capital to be invested in greater output.

2.2.3 Ricardian Equivalence Theory

The Ricardian equivalence school by Bano R. J. (1989), contrasts both Keynesian and Neo-classical view. It proposes that budget deficit doesn't influence economic growth assuming agents are rational and forward looking. The proponents of the theory argue that agents will reduce consumption when there is a fiscal stimulus anticipating a future increase in taxes therefore neutralizing the impact of the demand stimulating fiscal

policy (Ghali, 1977). To assess the present value of taxes, the principle assumes farsighted individuals with exceptionally long-term horizons.

The theory claims that budget deficits have no association with growth in economic terms since they do not affect the overall demand level of the economy. On these grounds, any budget deficit increase funded through government borrowings is effectively equal to the potential tax burden increase in the future. In the future reduced taxes are offset by higher taxes. Therefore, budget deficits and taxes have an equal effect on the economy (Kormendi & Meguire, 1987).

David Ricardo was the major proponent of the theory. The theory was later advanced by Barro in 1989. Barro (1989) suggested that budget deficits funded by tax and debt have similar effects on the economy. He claims that debt-funded deficits would be financed by tax hikes. A tax cut financed by deficits results in higher potential taxes. In other words, decreasing government savings leads to a rise in the private savings desired and no improvement in the national savings desired. The real interest rate in an economy that is closed also won't increase to sustain the required national saving and investment balance demand, as the desired national saving remains unchanged. There will be no impact on the current account balance in an open economy, as desirable private savings increase sufficiently to prevent borrowing from foreign sources.

Consequently, budget deficits will also not cause current account deficits. The proponents of the theory believe that if the government funds its deficits by loans or taxes, households will respond similarly. Ricardo claimed the budget deficit rose as a result of government increasing costs, which can be charged now or later.

Consequently, tax cuts created by budget deficit policy have little effect on spending and savings; this does impact on other economic variables, key among them economic growth (Mangio, 2004).

Smetters (1999), critiques the theory on five main fronts; imperfect inheritability of time preference parameters, myopia among market players, borrowing constraints, discriminatory labour taxation and strategic bequest motives.

2.3 Determinants of Economic Growth

This section discusses factors affecting economic growth which include; Inflation, Exchange rate and Interest rate.

2.3.1 Inflation

Inflation is described as a continuous increment in the cost levels of products as well as that of services for a given time period (Sax, 2014). Inflation decreases the purchasing power of money as it loses value due to increased prices of goods (Zaighum, 2014). The inflation levels are used by the stakeholders to identify the capability of institutions mandated to control inflation in managing it (Xu & Chen, 2012). The inflation rate changes have huge impact on purchasing power as well as the costs associated with firm production activities (Ciccone & Jarocinski, 2010). Indeed, many scholars reiterate that high inflation rates have an inverse relationship with economic growth and in many cases, many view economies with high rates of inflation as having failed (Chang & Mendy, 2012). High rate of inflation is viewed as the main factor contributing to the high costs of services and products, but there are other factors such as when demand for product and services exceeds the supply. Jobs rises with modest inflation; people

have enough money to buy goods and services and the economy expands: This implies that moderate inflation helps an economy to develop out of a recession. (Koiman et al., 2007). As prices of goods and services increases, the currency depreciates because the purchasing power of people reduces consequently impacting on economic growth negatively (Asheghian, 2009)

Bhaskara-Rao and Hassan (2011) find evidence that inflation has a negative association with economic growth. They opine that inflation leads to more spending on lesser goods by the general public. Moreover, they discovered that investment level is low when inflation is high as the population spends money to buy only basic commodities especially food. As a result, people try to use less cash when inflation increases, turning to substitutes like barter and foreign currency thus shrinking the tax base, consequently reducing the revenue collected by the government.

2.3.2 Exchange Rate

This is the amount at which one currency (Domestic) trades for another currency (Foreign) (Mishkin & Eakins, 2009). This is vital to the country's BOP as well as the overall performance of GDP. It has impact on various economic variables including; BOP, reserve ratios, and unemployment levels (Roihjert & Åhlander, 2016). A decrease in exchange rates implies low returns for country's' goods and high prices for their exports conversely making their exports lose a competitive advantage. Currency depreciation is therefore said to negatively impact on economic growth. It further affects other factors such as domestic financial securities, rate of inflation among others (Xu & Chen, 2012).

A high exchange rate is generally an indicator of the well-being of an economy. In nations with low inflation, an appreciating exchange rate also occurs. This increases growth and solidifies an economy (Basirat, et al., 2014). Developing nations have a rather more fixed exchange rate, making them uncompetitive. The inflexibility of external exchange rates is a vital element derailing economic development. De Grauwe and Schnabl (2008) in their study of European countries found that stability of the exchange rate favors economic growth. Conversely, they discovered that the dollar export growth rate and budget deficits were positively associated to growth in economic terms. Tanzi (1989) postulates that real exchange rate appreciation contributes to a decline in the GDP-to-tax ratio, *ceteris paribus* since currency overvaluation impacts directly on import and export bases that are determined using the local currency. This decreases collections of taxes on international trade, sales and excise taxes consequently impacting negatively on the economic growth. (Ciccone & Jarocinski, 2010).

2.3.3 Interest rate

It is the rate at which lenders advance capital to borrowers (Kim & Shi, 2018). It aims at mobilizing resources for the borrowers who in turn invest them in productive economic activities. Interest rate is one of the main tools that is used to control prices in a country by maintaining inflation at desirable levels by determining the significance of macroeconomic measures such as capital flows, investment and exchange rate. It has the potential to influence the aggregate economy (Ujuju & Etale, 2016).

High rate of interest is a contractionary move which intends to reduce excess supply of money in the economy by making capital more expensive. (Zaighum, 2014). Low rates of interest on the other hand induces economic growth as capital is cheaper hence attracting investment by increasing money supply in the economy (Kurowski & Rogowicz, 2017). Low interests can also lead to currency devaluation which makes exports cheaper hence giving them a competitive (Obadeyi, 2016). The government needs to keep interest rates high in order to sustain currency appreciation. Economic development is affected adversely by high interest rates.

Ammer, et al., (2018) find that developed countries with lower interest rates typically experience higher investments mainly driven by corporate bond investment rather than treasury bonds. Thus, implying that lower interest rates encourage positive economic growth in these countries. Jurkšas (2017) explores the rationale behind the implementation of a plan for a negative interest rate and assesses how the negative policy rate impacts the different economic sectors. Results indicated that the economic sectors were impacted with different magnitude depending on their maturity by the negative interest rate policy. Salami (2018) finds a link that is significantly negative between economic growth and interest.

2.4 Empirical Review

Van and Sudhipongpracha (2015) determined the connection between economic growth and budget deficit in Vietnam. The study covered the period 1989-2011. World Bank reports provided a source for secondary data. Data was divided into two: 1989–2000 and 2001–2011. Data analysis was attained by using descriptive statistics for comparison of Vietnam key economic features with other Southeast Asian economies

and also using panel data econometrics to determine budget deficits effects. The results revealed no association between budget deficit with growth in economic terms.

Kameda (2014) investigates whether budget deficits has link with the growth in economic terms of Japan. The study covered the period 2008. Event study methodology was utilized in data analysis. Secondary data in the form of published forecasts of budget deficits provided by the Japanese ministry of finance was the data collection tool employed. 4 year-ahead forecasts were preferred over OECD projections that provided for 2-year forecasts. Real GDP relationship to budget deficit was found to be negative though insignificant.

Biza et al., (2015) looked at budget deficit and South Africa private investment association. The study covered the period 1994-2009 and the data collected was quarterly in nature. Johansen cointegration test and vector auto-regression technique are used in data analysis. Data was obtained from the South Africa Exchange commission (SEC). The empirical result showed that budget deficit is substantially crowding out private investment. Study finding revealed a negative impact on growth by budget deficit, as the decrease in investment resulted into long-term growth stagnation.

Amwaama (2018) determined the connection between economic growth deficit and Namibia's budget deficit. The period covered was 1993-91 to 2015. Data was obtained from Namibia's finance ministry and statistics agency. The methodology KPSS test and ARDL co-integration were used for purposes of establishing relationships among the variables. The Toda- Yamamoto was also employed in the determination of causality.

Findings of the study revealed an association that budget deficit had with Namibia's growth in economic terms both in the short and long term to be negative.

Osoro (2016) investigated budget deficit and Kenya's growth in economic terms. The study applied information from the World Bank, KNBS and budget reports obtained through the Ministry of Finance. The study period was running from 1980 to 2014. Quantitative analysis in the form of descriptive statistics was used. Economic growth was found to be impacted positively by budget deficits in Kenya. The study concluded that, the Kenyan government should not be worried about the existence of budget deficit but the levels should be their main concern, since beyond 3.696 per cent of GDP, it becomes unsustainable to the growth of the economy.

Sirere (2015) sought to investigate budget deficit financing association with Kenya's growth in economic terms. The period was 2005 to 2014. Quantitative data was collected from parliamentary budget reports, electronic journals and from informative articles. The research design used was descriptive design. SPSS was used in analyzing data and presented using tables. Budget deficit financing and economic growth relationship as measured by GDP were found to be negative and significant.

Okelo, et al., (2013) established the association between fiscal deficits and Kenya's growth in economic terms. Exploratory and causal research designs were applied in the study. Data for 38 years for the period 1970 to 2007 was collected. Sampling technique used was purposively sampling. OLS was used in the sampling selection. Budget deficits association to economic growth was established to be positive. The study proposes prudent financial management and increased tax collection by KRA.

Onyango (2013) investigated budget deficit financing determinants in Kenya. Data was from 2003 to 2012. Exploratory design was employed. Data was derived from KNBS and the National Treasury. SPSS was used in analyzing data using the linear regression model. Debt service, ordinary tax revenue, Net government expenditure, external revenue were determinants of deficit financing that were investigated. A positive association was established between the aforementioned determinants and fiscal deficit. Musyoka (2013) investigated budget deficit and growth in Kenya in terms of GDP. The period was 2003 to 2012. Data from KNBS was gathered for the analysis. Quantitative data was employed in the study. A dynamic econometric model was the study analysis model used in addition to regression analysis. OLS was also used. Budget deficit association to economic growth in Kenya was discovered to be negative and significant.

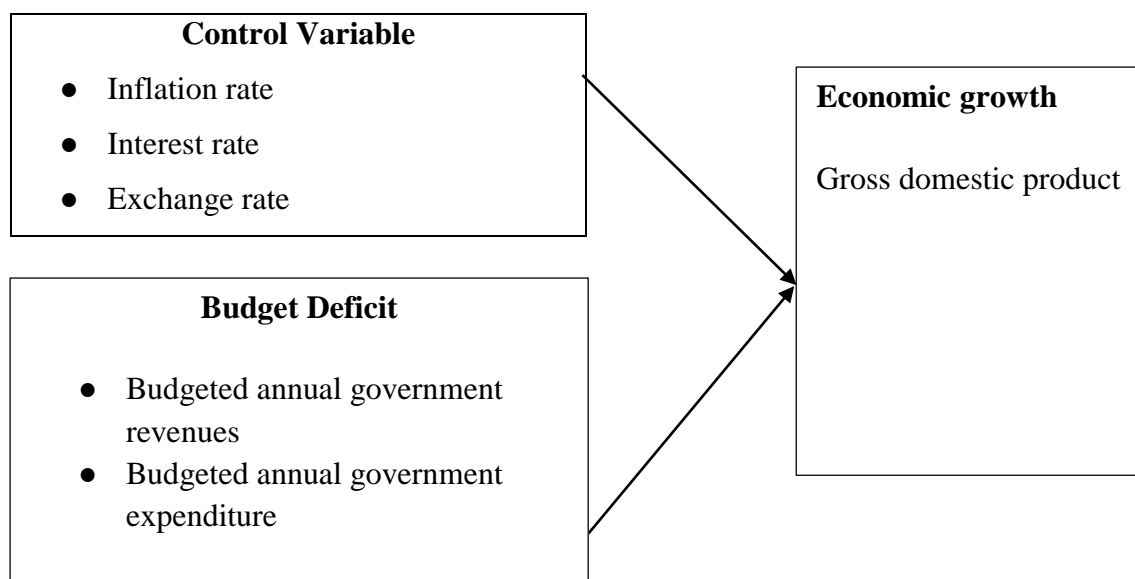
2.5 Conceptual Framework

The independent, dependent and control variables are depicted in the figure below. The dependent variable for the research is economic growth while the independent variable is budget deficit and the control variable include: inflation, exchange rate and interest rate.

Figure 2.1 Conceptual Framework

Independent Variables

Dependent Variables



2.6 Summary of Literature Review and Knowledge Gaps

The Keynesian theory, Neo-classical theory and the Ricardian Equivalence theory were discussed in the literature section above. The determinants of economic growth were also discussed in the literature review section. Research conducted in the past on budget deficit and economic growth link has centered on different concepts, contexts and methodology.

Studies done in developed nations are not generalizable to developing nations as countries differ in time dimension, country forms and types of government: Kameda (2014) investigates budget deficits and economic growth in Japan while Van and Sudhipongpracha (2015) determined the link between budget deficit and the Vietnamese economic growth: Biza et al., (2015) looked at only one aspect of economic growth and that is private investment thus overlooking public investment. The methodology applied for the various studies is also different: Kameda (2014) uses the

event study methodology whereas Van and Sudhipongpracha (2015) used the panel data econometrics methodology.

Even for the studies done locally the context and outcome is different: Onyango (2013) investigated on the determinants of budget deficit financing while the current study focusses on budget deficit relationship to economic growth. Musyoka (2013) finds a negative link between budget deficit and Kenya's economic growth whereas Osoro (2016) finds a positive link. This study intends to bridge these gaps by investigating the effect of budget deficit on economic growth in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methods applied in the study to determine the effects of budget deficit on economic growth in Kenya are discussed. Research design, data collection and data analysis methods used in the study are also explained.

3.2 Research Design

Descriptive design was used. It's a design that is used when the researcher needs to depict specific behavior as it occurs in the environment (Khan, 2008). Zikmund (2000) notes that, the main quality of this design is that the variables cannot be controlled by the researcher as he can only describe what is occurring or has occurred. The descriptive design guarantees minimal bias in data collection and eliminates data interpretation errors (Cooper & Schindler, 2008).

3.3 Target Population

The population analyzed in this study is the Kenyan economy using aggregate data for the variables mentioned in the research design. The study period was 2001 to 2019.

3.4 Data Collection

Data was derived from the CBK website. The study covered the period 2001 to 2019. The period represents the financial years through which Kenya's fiscal deficit has been rising. The fiscal deficit was at 4.3 percent in 2010/11 financial year but has been on a rise under President Uhuru Kenyatta regime, hitting 9.1 percent in 2016/17. The deficit

narrowed to 7.4 per cent in the succeeding year before rising marginally to 7.7 per cent in 2018/2019.

3.5 Diagnostic Tests

Various tests which are diagnostic were undertaken in a bid to assess the assumptions of the regression model. Diagnostic tests ensure that the assumptions are not violated. With the use of F-statistics in ANOVA, the linearity test was accomplished. Skewness and kurtosis tests determined normality. In evaluating auto-correlation, Durbin-Watson statistics were applied (Khan, 2008).

3.6 Data Analysis

The data was displayed in tables as summaries. The multiple regression analysis was used to predict the effects of budget deficit (independent variables) on economic growth (dependent variable) and was estimated using the linear regression model below

3.6.1 Analytical Model

The study applied the model below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Y= Economic growth measured GDP growth rate per annum

β_i (i= 1, 2, 3, 4) = Coefficients of regression

X_1 = Budget deficit was determined using the formula: Log of budgeted government revenue – Log of budgeted government expenditure

X_2 = Interest rates was determined using CBK average lending rate

X_3 = Exchange rate was determined using average Kenya shilling per unit of US dollar

X_4 = Inflation was measured using average consumer price index

ϵ = Error Term

3.6.2 Tests of Significance

The F-test was computed to explain the overall significance level. The study measured the statistical significance of variables by evaluating the P-Value. Variables are significant if the p-value is less than 0.05 which is the alpha value at 95 % confidence level.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The objective was to determine the effect of budget deficit on economic growth in Kenya. This chapter involved analysis of the data collected and the discussion of the results obtained.

4.2 Descriptive Statistics

In this analysis, it presents the mean, maximum and minimum values, skewness, kurtosis and standard deviation of the variables used.

Table 4.1: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
GDP	0.48	8	4.95	1.93	-.796	.615
Log of budget deficit	4.04	5.88	4.83	.56	.346	-.822
Interest rate	12.44	19.67	15.29	2.31	.631	-.653
Inflation	1.96	16.23	7.71	3.59	.818	.501
Exchange rate	67.32	103.41	84.57	11.71	.423	-1.092

Source (Researcher, 2020)

The average economic growth as measured by GDP is 4.95% with a minimum of 0.48% and a maximum of 8%. Budget deficit has an average of 4.83, a minimum of 4.04 and a maximum of 5.88. Interest rate is 15.29% with a minimum value of 12.44% and a maximum value of 15.29%. Inflation and exchange rate had an average of 7.71% and

84.57 and minimum and maximum values of 1.96% and 67.32 and 16.23% and 103.41 respectively. Exchange rate and Inflation had the highest standard deviations of 11.71 and 3.59 respectively. This shows that the two variables have very high volatility and are dependent on each other.

Exchange rate is determined by inflation, public debt, interest rate, speculation and balance of payments which are difficult to predict while inflation is dependent on the fiscal and monetary policy. Interest rate also has a relatively high standard deviation because it depends on several factors such as inflation, liquidity and risk. Budget deficit has a standard deviation of 0.5, implying that on average, budget deficit will deviate from the mean by about 0.5 units. The findings in Table 4.1 above also show that GDP had skewness of -0.796 and kurtosis of 0.615, budget deficit had 0.346 and -0.822, interest had 0.631 and -0.653, inflation had 0.818 and 0.501 while exchange rate had 0.423 and -1.092 respectively. Data analysis proceeds if the kurtosis and skewness is in a range of +2 and -2 as this will be a sign which indicates that the data has a regular distribution (Kothari, 2004). From the above findings, all values of skewness and kurtosis are between +2 and -2 and therefore the researcher proceeds with the analysis.

4.3 Correlation Analysis

In order to find out the strength and pattern of the connection between the study variables, correlation analysis was conducted. Strength of the relationship between the variables is either weak, moderate or strong, while the direction is either positive or negative.

From the findings, the Pearson coefficient r for budget deficit exhibited a positive value of 0.33, showing that it is positively related with economic growth in Kenya. This relationship is insignificant: $(0.168 > 0.05)$. For interest rate, $r = -0.36$ which shows a negative association with GDP. The relationship is also insignificant: $(0.123 > 0.05)$. Exchange rate had Pearson correlation $r = 0.253$, showing that it is positively related with economic growth. This relation is however insignificant at 5% level of significance i.e. $0.297 > 0.05$. Inflation was found to be negatively correlated with economic growth though the relationship between the two variables was not significant; $r = -0.264$, $p = 0.343$.

		GDP	Log of budget deficit	Interest rate	Exchange rate	Inflation rate
GDP	Pearson Correlation	1	.330	-.366	.253	-.264
	Sig. (2-tailed)		.168	.123	.297	.343
	N	19	19	19	19	19
Inflation rate	Pearson Correlation	-.264	-.023	-.054	.421	1
	Sig. (2-tailed)	.343	.924	.349	.144	
	N	19	19	19	19	19
Log of budget deficit	Pearson Correlation	.330	1	-.099	.852**	-.023
	Sig. (2-tailed)	.168		.687	.000	.924
	N	19	19	19	19	19

Interest rate	Pearson Correlation	-.366	-.099	1	-.027	-.054
	Sig. (2-tailed)	.123	.687		.912	.349
	N	19	19	19	19	19
Exchange rate	Pearson Correlation	.253	.852**	-.027	1	.421
	Sig. (2-tailed)	.297	.000	.912		.144
	N	19	19	19	19	19

Table 4.2: Correlation Analysis

Source (Researcher, 2020)

4.4 Regression Analysis

In addition to budget deficit, economic growth was also regressed against; interest rate, exchange rate and inflation and the outcome is shown in table 4.3 below. From the findings, R square is 29.3% an indication that 29.3 percent of the deviations in economic growth in Kenya are due to changes in the independent variables. Other variables not covered in the study account for 70.7 percent deviations in Kenya's economic growth. Also, R is 54.1% showing strong positive correlation between the study variables. A 1.433 durbin-watson statistic showed that since the value was less than 1.5, the component residuals were serially associated.

Table 4.3: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.541 ^a	.293	.090	1.841	1.433

a. Predictors: (Constant), Inflation, interest rate, Exchange rate, Log of budget deficit

b. Dependent Variable: GDP

Source (Researcher, 2020)

Table 4.4: Regression of ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.618	4	4.904	1.448	.0270 ^b
	Residual	47.434	14	3.388		
	Total	67.052	18			

a. Dependent Variable: GDP

b. Predictors: (Constant), Inflation, interest rate, Exchange rate, Log of budget deficit

Source (Researcher, 2020)

At 5% level of significance, the ANOVA table indicates F calculated is 1.448. The F calculated is thus greater than the critical value of F 1.22. Thus, we conclude that the overall model was a great fit in determining the impact of budget deficit, interest rate, inflation and exchange rate on Kenya's economic growth. The p value $0.0270 < 0.05$, indicates statistically significant association between the study variables. Therefore, the model was fit. Hence, for GDP, independent variables are good joint predictors.

Table 4.5: Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1	(Constant)	7.379	5.641		1.308	.212
	Log of budget deficit	.926	1.505	.269	.615	.548
	Interest rate	-.329	.194	-.394	-1.694	.112
	Exchange rate	-.008	.071	-.050	-.117	.909
	Inflation	-.151	.127	-.281	-1.188	.255

a Dependent Variable GDP

Table 4.5 above indicates the regression coefficients for the regression of independent variables. The regression model has a constant of 7.379 while budget deficit, interest rate, exchange rate and inflation had coefficients of 0.926, -0.329, -0.008 and -0.151 respectively. The resulting regression equation is:

$$ROA = 7.379 + 0.926 X_1 - 0.329 X_2 - 0.008X_3 - 0.151X_4$$

Budget deficit had a regression coefficient of 0.926. This implies that budget deficit influenced economic growth positively. The coefficient of budget deficit had a p value of 0.548; since its more than 0.05 then its effect on economic growth is statistically insignificant. Interest rate had a coefficient of -0.329 with a significance probability of 0.112. Since the p value is greater than 0.05 then its effect is insignificant. The coefficient of exchange rate is -0.008 and the p value is 0.909. This result reveal that exchange rate link to economic growth is negative and its impact is insignificant due to its p value which is greater than 0.05. Inflation had a coefficient of -0.151 and a significance probability of 0.255 and thus showing that its effect on economic growth was negative and non-statistically significant.

4.5 Discussion of Research Findings

The results of regression and correlation revealed a positive and insignificant association that budget deficit had with Kenya's growth in terms of GDP. The findings reveal that GDP triggers investment and that budget deficit is caused by investment. Keynesian views on the budget deficit are partly reinforced by the findings of this study: Deficits don't need to crowd out private investment because increased spending on the deficit contributes to increased aggregate demand, private consumption and savings at a specific interest rate point, assuming some economic resources are unemployed (Eminer, 2015). Some economists claim that budget deficit helps to develop the economy if it is due to productive investment, such as education spending, health, etc. Odhiambo et al., (2013) also finds that budget deficit impacts positively on Kenya's economic growth. Akin to that, Bos, et al., (2003) found that productive investment, such as health, education and capital expenditure, contributes to economic growth in developing nations. However, Rana and Wahid (2016) disagree, their research showed budget deficit had a link that was negative and strong with Bangladesh economic growth. The researchers opined that the negative link was due to the effects of increasing long-term interest rate.

Both regression and correlation analysis revealed that economic growth had an association with interest rate which was negatively insignificant in Kenya. High rate of interest is a contractionary move which intends to reduce excess supply of money in the economy by making capital more expensive. This shows that high-interest rates negatively affect economic growth. Low rates of interest on the other hand induces economic growth as capital is cheaper hence attracting investment by increasing money supply in the economy (Kurowski & Rogowicz, 2017). Low interests can also lead to

currency devaluation which makes exports cheaper hence giving them a competitive (Obadeyi, 2016). Salami (2018) also finds a negative association between the variables. Similarly, Polain, Sterck and Nyssens (2018), also argue that borrowers are deterred from borrowing where interest on loans is increased which consequently impacts on the need or intent of accessing opportunities available for income-generating investments.

Also, regression and correlation results showed a negative and insignificant association between inflation and economic growth in Kenya. As prices of goods and services increases, the currency depreciates because the purchasing power of people reduces consequently impacting on economic growth negatively (Asheghian, 2009). Inflation decreases the purchasing power of money as it loses value due to increased prices of goods (Zaighum, 2014). Bhaskara-Rao and Hassan (2011) also find that inflation has a negative link with economic growth. They opine that inflation leads to more spending on lesser goods by the general public. Similarly, Prochniak (2011) in his study of Central and Eastern European economies, also found that inflation is negatively linked with economic growth. However, Kryeziu, Nexhat & Durguti, Esat. (2019) find inflation link to economic growth to be positive in their Eurozone countries study.

Exchange rate association to economic growth was established to be negative in the regression findings. The relationship was however discovered to be non-statistically significant. Tanzi (1989) finds also finds a similar negative link that exchange rate has with economic growth. He opines that real exchange rate appreciation contributes to a decline in the GDP-to-tax ratio, since currency overvaluation impacts directly on import and export bases that are determined using the local currency. This decreases collections of taxes on international trade, sales and excise taxes consequently

impacting negatively on the economic growth. (Ciccone & Jarocinski, 2010). Having developed an undervaluation index based on a real exchange rate for countries based on purchasing power parity, Rodrik (2008) shows clear evidence of the growth-enhancing impact of undervalued currencies.

The model summary revealed that the independent and control variables explained 29.3 % of changes in the dependent variable which implies that variables not discussed in this study account for 70.7% of deviations in economic growth. The model is fit at 5% significance level.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the research summary results in view of the objectives of the research. The summarized discoveries have generated conclusions for the study. Recommendations of the study have relevant implication to policy makers. The chapter also provides shortcomings of the study and suggestions for more study.

5.2 Summary of Findings

The research aimed at determining the effect of budget deficit on economic growth in Kenya. The Keynesian theory, Neo-classical theory and the Ricardian Equivalence theory provided the theoretical foundation for the study. Descriptive design was utilized and data covering 2001 to 2019 was derived from the CBK website. The linear model was used to perform data analysis.

Correlation results revealed a weak and positive link between budget deficit and economic growth. Interest rate correlation to economic growth was found to be weak and negative. Exchange rate was discovered to have a positive correlation with economic growth but this link was also weak. Inflation was also found to have a weak link with economic growth. The relationship was also found to be negative. These findings are in tandem with Onyango (2013) whose findings revealed that budget deficit link to Kenya's economic growth was positive.

The 0.293 R-square suggested that only 29.3 percent of shifts in GDP could be accounted for by the independent variables. The remaining 70.7 percent is attributed to

other factors not included in the analysis that are also causing shifts in Kenya's economic growth. The findings of ANOVA revealed that the F statistics were significant at the level of 5 percent significance. The model was therefore appropriate for illustrating the relationship between the variables selected.

The results of the regression revealed that GDP would be 7.379 if all the independent variables were to be zero. A unit increase in budget deficit will contribute to a 0.926 rise in GDP. A unit interest rate, inflation and exchange rate rise will result in a decrease in GDP of 0.329, 0.151 and 0.008, respectively.

5.3 Conclusion

The study established a positive and insignificant association between budget deficit and GDP. The study therefore concludes that the economic growth of Kenya is not significantly impacted by budget deficits. Similarly, Rahman (2012) researched the deficit-growth relationship and noted a weak deficit-growth relationship, though budget deficit and economic growth appeared to be linked positively.

The study also concludes that interest rate impacts negatively and insignificantly on Kenya's economic growth. We can infer from the results that higher interest rates trigger decrease in economic growth even though not to a significant extent. On the other hand, low interest rates reduce national savings by spurring consumption growth. The study also concludes that inflation impacts negatively and insignificantly Kenya's economic growth. Akin to that, Bhaskara-Rao and Hassan (2011) find evidence that inflation impacts on economic growth negatively. They opine that inflation leads to more spending on lesser goods by the general public. Prochniak (2011) in his study of

European economies, also concluded that inflation and economic growth had an association that was negative.

Finally, the study concludes that exchange rate impacts on Kenya's economic growth negatively and insignificantly. By decreasing the collections of taxes on international trade, sales and excise taxes thus impacting negatively on the economic growth. (Ciccone & Jarocinski, 2010).

5.4 Policy Recommendations

Budget deficits are vital for every economy that is improving. The study suggests that policy makers should try to maintain a budget deficit threshold of 1.5% of GDP, because it is sustainable at this level. A budget deficit that is more than 1.5% per cent causes a detrimental effect on economic growth of Kenya.

To maintain the budget deficit at sustainable levels, the study recommends exploring other options of financing expenditure especially the development expenditure like public private partnership which will create fiscal space off the government balance sheet. This is expected to create fiscal space and reduce the fiscal deficits to sustainable levels.

Finally, with a view to imposing austerity steps on non-productive, non-priority and unsustainable government-wide spending, the government should implement expenditure reviews. It would make sure that government spending is rationalized to balance the inflows of government revenue.

5.5 Limitations of the Study

The study period was limited to 19 years between 2001 and 2012. The Central Banks of Kenya website provided the secondary data. The analysis was also limited to the degree of accuracy of the secondary source data collected. Although the knowledge was verifiable, it may still be vulnerable to errors.

Secondary data was the only data collection method that was employed in the study. Consequently, only quantitative aspects were covered overlooking the qualitative aspects which are also significant for Kenya's political arena which has been fluctuating. The results of these fluctuation may have had a major influence on economic growth determinants.

5.6 Suggestion for Further Studies

Future studies on the efficacy of current government budget deficit reduction policies be carried out, as this will help policymakers knowledgeable of the success of existing policies and to identify areas where improvements need to be made.

The study is also of the view that that a study be carried out on budget deficit link to Kenya's foreign direct investment in order to provide in-depth literature that can be used or applied by other scholars. Further additional studies on the link that budget deficit has with the study control variables (interest rate, inflation rate and exchange rate) can also be explored.

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