

**RELATIONSHIP BETWEEN MACROECONOMIC INDICATORS
AND GOVERNMENT FISCAL POLICY INITIATIVES IN KENYA**

BY

ANTHONY MUTUA MUTHINI

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF SCIENCE IN FINANCE OF THE UNIVERSITY
OF NAIROBI.**

OCTOBER 2015

DECLARATION

This research project report is my original work and has not been presented for a degree in any other university.

Signed:..... Date.....

Anthony Mutua Muthini

Reg. No.D63/72775/2014.

This research project report has been submitted for examination with my approval as the Nairobi University supervisor.

Signed:..... Date.....

Dr. Duncan Elly Ochieng PhD, CIFA.

Supervisor

DEDICATION

I dedicate this work to my family, parents, brother and sisters.

ACKNOWLEDGEMENT

I am grateful to Dr. Duncan Elly Ochieng who has generally offered his contributions on various areas of my research project report. My thanks go to the University of Nairobi for starting this program in Masters of Science Finance that empowers many students to be competent finance experts.

I would like to thank all my lectures for the professionalism and dedication. Thanks to my colleagues who offered assistance that helped me write the research project report. I am sincerely grateful to family, parents, brother and sisters who voluntarily participated in this study and made it a success.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
LIST OF FIGURES	viii
LIST OF TABLES	ix
ABBREVIATIONS AND ACRONYMS.....	x
ABSTRACT.....	xi
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study.....	1
1.1.1 “Macroeconomic Indicators”	1
1.1.2 Government Fiscal Policy.....	3
1.1.3 Macroeconomic Indicators and Government Fiscal Policies.....	3
1.1.4 Government Fiscal Policy in Kenya	4
1.2 Research Problem	5
1.3 Research Objective	6
1.4 Value of the study	7
CHAPTER TWO: LITERATURE REVIEW.....	8
2.1 Introduction.....	8
2.2 Theoretical Framework.....	8
2.2.1 Keynesian Theory	8
2.2.2 New Classical Economics.....	10
2.2.3 Classical Economics	11

2.3 Determinants of Government Fiscal Initiatives	12
2.3.1 Gross Domestic Product	12
2.3.2 Consumption	13
2.3.3 Government Expenditure	13
2.3.4 Investments	14
2.3.5 Net Exports	14
2.4 Empirical Review.....	15
2.5 Chapter Summary	17
CHAPTER THREE: RESEARCH METHODOLOGY	19
3.1 Introduction.....	19
3.2 Research Design.....	19
3.3 Data Collection	20
3.4 Data Analysis	20
3.4.1 Analytical Model.....	21
3.4.2 Test of significance	22
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION	23
4.1 Introduction.....	23
4.2 Descriptive Statistics.....	23
4.3 Correlation Analysis	24
4.4 Time Series Analysis	25
4.5 Testing for Stationarity	25
4.6 Lag Length Selection	27
4.7 Co integration test.....	28

4.8 Vector Autoregressive Model	29
4.9 Post Estimation Analysis	30
4.11 Discussion of the findings.....	33
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	36
5.1 Introduction.....	36
5.2 Summary of findings.....	36
5.3 Conclusion	37
5.4 Limitations of the study	39
5.5 Recommendations.....	40
5.6 Suggestions for further studies.....	41
REFERENCES.....	43
APPENDICES.....	48
APPENDIX II: DATA COLLECTION INSTRUMENT	48

LIST OF FIGURES

Figure 4.1: Correlogram of the Residuals.....	28
---	----

LIST OF TABLES

Table 4.1: Descriptive Statistics	23
Table 4.2: Correlation Analysis	24
Table 4.3: ADF Stationarity Test for Variables.....	26
Table 4.4: ADF Stationarity Test for First Difference Variables (No Trend)	26
Table 4.5: Results of Lag Length Selection.....	27
Table 4.6: Johansen Co integration Test.....	28
Table 4.7: Vector Autoregressive Model.....	29
Table 4.8: Granger Causality Test	31
Table 4.9: Eigen value stability condition	31

ABBREVIATIONS AND ACRONYMS

ADF	Augemented Dickey Fuller
AIC	Akaike Information Criterion
CPI	Consumer Price Index
EDU	Government Expenditure On Education
FPE	Final Prediction Error Criterion
GDP	Gross Domestic Product
HEA	Health
HQIC	Hannan-Quin Information Criterion
LR	Log-Likelihood Ratio
PCE	Personal Consumption Expenditures
SBIC	Schwarz' Bayesian Information Criterion
TCAP	Government Total Capital Expenditure
TRACO	Transport and Communication
TREC	Total Recurrent Expenditure
VAR	Vector Autoregressive Model

ABSTRACT

The main objective of the study was to investigate the relationship that exists between macroeconomic indicators and government fiscal policy initiatives in Kenya. Macroeconomic environment which consists of inflation, exchange rate, gross domestic product, investments and savings, demand for higher wages and salaries and a growing current account deficit are affected by the implementation of either expansionary fiscal policies or contractionary fiscal policies. Literature review was done and established both positive and negative relationship between government expenditure and economic growth. Descriptive research design was employed to describe relevant aspects of the phenomenon. Secondary data was collected and analyzed using both linear regression and autoregressive model. The analysis focused on descriptive statistics, correlation analysis, time series analysis, test of stationarity, lag length selection, correlogram of residuals, co-integration test, granger causality test, and post estimate analysis. Findings drawn from both linear regression analysis and auto regression model concluded that a short run relationship existed between macroeconomic indicators and government fiscal policy initiatives in Kenya. The study recommended that there is need to review the way government fiscal policies are formulated in order to make sure that they respond to appropriate macroeconomic indicators. Finally the study suggested that further studies on the relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya should be conducted, based on different methodologies other than the ones the researcher applied so as to justify that short run relationship between the variables does exist and long run relationship does not exist.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Fiscal policy involves the use of government spending, taxation and borrowing to affect the level and growth of aggregate demand, output and jobs. Borrowing is the temporary acquisition of money with the intent to repay the amount borrowed. In a financial sense, if you borrow money, you assume a debt to the lender (Glenn, 2006).

Government spending can refer to any expenditure made by local, regional, and national governments. In most countries, government spending makes up a significant portion of the gross national product. Spending is accomplished in several major areas including future investments, acquisitions and transfer payments (Geek, 2013).

Taxation is a means by which governments finance their expenditure by imposing charges on citizens and corporate entities. Governments use taxation to encourage or discourage certain economic decisions, for example reduction in taxable personal income by the amount paid as interest on home mortgage loans results in greater construction activity and generates more jobs (Web, 2001).

1.1.1 “Macroeconomic Indicators”

Macroeconomic indicators are statistics that indicate the current status of the economy of a state depending on a particular area of the economy such as industry, labor, and market, trade, etc. It is therefore important to understand what these macroeconomic indicators represent (Simon and Robert, 2011).

Interest rates play the most important role in moving the prices of currencies in the foreign exchange market. Interest rates dictate flows of investment. Since currencies are the representations of a country's economy, differences in interest rates affect the relative worth of currencies in relation to one another. When central banks change interest rates, they cause the forex market to experience movement. In the realm of Forex trading, accurate speculation of central banks' actions can enhance the trader's chances for a successful trade (Simon and Robert, 2011).

The GDP is the broadest measure of a country's economy, and it represents the total market value of all goods and services produced in a country during a given year. The Consumer Price Index (CPI) is probably the most crucial indicator of inflation. It represents changes in the level of retail prices for the basic consumer basket. Inflation is tied directly to the purchasing power of a currency within its borders and affects its standing on the international markets. If the economy develops in normal conditions, the increase in CPI can lead to an increase in basic interest rates. This, in turn, leads to an increase in the attractiveness of a currency (Simon and Robert, 2011).

Employment indicators reflect the overall health of an economy or business cycle. In order to understand how an economy is functioning, it is important to know how many jobs are being created or destructed, what percentage of the work force is actively working, and how many new people are claiming unemployment. The retail sales indicator is released on a monthly basis. It shows the overall strength of consumer spending and the success of retail stores. The report is particularly useful because it is a timely indicator of broad consumer spending patterns that is adjusted for seasonal variables (Simon and Robert, 2011).

Stabilization of the economy (e.g., full employment, control of inflation, and an equitable balance of payments) is one of the goals that governments attempt to achieve through manipulation of fiscal policy. Fiscal policy relates to taxes and expenditure (Riley, 2014).

1.1.2 Government Fiscal Policy

Fiscal policy initiatives can either be expansionary or contractionary. In expansionary fiscal policy, the government increases spending or decreases taxes to stimulate or expand the economy. In contractionary fiscal policy, the government decreases spending or increases taxes to attempt to slow economy. An increase in government spending has a direct effect on the economy by inducing higher demand for goods and services. This results to a rise in income and employment, also provides an indirect effect by stimulating higher private consumption as households and firms gain more purchasing power (Delong et al, 2009).

Government fiscal policy tools can be viewed as a toolkit that helps the government to strengthen the aggregate demand when it is weak. On the other hand, when the economy is overheating by growing beyond its capacity, fiscal policy does the opposite and slows down economic growth to address the problem of inflation. Fiscal policy, therefore, is the use of government spending, taxation and transfer payments to influence aggregate demand and, therefore, real GDP (Abel et al., 2008).

1.1.3 Macroeconomic Indicators and Government Fiscal Policies

Macroeconomic indicators are statistics that indicate the current state of economy in a country and therefore they influence the government fiscal policy initiatives to be put

in place. Macroeconomic environment which consists of inflation, exchange rate, gross domestic product, investments and savings, demand for higher wages and salaries and a growing current account deficit are affected by the implementation of either expansionary fiscal policies or contractionary fiscal policies (Simon and Robert, 2011).

Fiscal policy has an important role in the policy balance. Indeed, both public revenue and government spending can be effectively used to tighten aggregate demand, although their different transmission channels and total effects in the economy must be taken into account. The government should increase its participation in the economy through consistent use of fiscal instruments as tools to help achieve macroeconomic stability (Araujo et al, 2012).

1.1.4 Government Fiscal Policy in Kenya

There is a mix in fiscal policies applied in Kenyan government as more of the resources are directed towards infrastructural projects such as construction of roads, hospitals, education, electricity connectivity in rural areas and irrigation. In addition, there is increased taxation of luxurious items as well as reduced taxation on consumption expenditure. This therefore involves both expansionary and contractionary fiscal policies which are geared towards stabilization of the economy (M'Amanja, 2005).

The government of Kenya pursued a prudent fiscal stance in which the overall budget deficit was contained. As a result, there was a net domestic repayment relative to a net borrowing contributing to a decline in the ratio of net domestic debt to GDP. This

facilitated a reduction in interest rates and expansion of credit to the private sector in support of productive activities. This fiscal framework called for increased spending in the critical “flagship” projects while at the same time ensuring that the overall fiscal deficit would progressively narrow to a sustainable level of GDP over the medium term (Thugge et al, 2011).

1.2 Research Problem

Macroeconomics is concerned with the behavior of the economy as a whole or in aggregate. Macroeconomic indicators therefore are closely linked to the policies adopted by the government to deal with the questions of inflation, unemployment, and economic growth. Fiscal policy initiatives refer to the use of taxation and expenditure by the government to influence the economic growth. If the economy is facing recession, the government cut taxes and increase spending. As a result of this, people have more money and can buy more goods and services leading to more jobs for people who make those goods and services. On the other hand, if the government fears inflation, it raises taxes and cut spending. This decreases the amount of disposable income that people have and so they spend less and prices do not rise (Dornbusch et al, 2004).

Fiscal policy in Kenya is one of the most powerful tools that the government uses to maintain macroeconomic stability for growth and correcting market failures. Fiscal policy is capable of affecting the orientation of asset accumulation and economic growth as well as influencing macroeconomic expansion and contraction and to affect intergenerational transfers through debt, taxation on extractable resources and subsidies (M’Amanja, 2005).

Gabriel et al. (2014) explains that a negative causal relationship between government spending and economic growth is evidenced. This is inconsistent with the Keynesian macroeconomic framework which states that government spending has a positive impact on the Nation's output.

Abu Nurudeen (2010) explains that rising government expenditure has not translated to meaningful development as Nigeria still ranks among world's poorest countries. In an attempt to investigate the effect of government expenditure on economic growth, he employed a disaggregated analysis. The results revealed that government total capital expenditure (TCAP), total recurrent expenditure (TREC), and government expenditure on education (EDU), have negative effect on economic growth. On the contrary, rising government expenditure on transport and communication (TRACO), and health (HEA) results to an increase in economic growth.

Njenga (2013) explains that, though GDP level in one period determines its own level in future periods; government expenditure actually influences GDP in the medium and long term. Contrary to this, Maingi et al., (2013) established that though government expenditure on education is positively related to economic growth, it does not spur any significant change to economic growth. These studies provide conflicting results which prompt further research to establish whether there is a relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya.

1.3 Research Objective

The main objective of the study was to investigate the relationship that exists between macroeconomic indicators and government fiscal policy initiatives.

1.4 Value of the study

The findings from this study if adopted is relevant to the public sector in contributing to the highly needed knowledge for formulating and establishing proper fiscal policy initiatives which results into desired macroeconomic indicators. The findings would also be beneficial to local companies who are affected by government fiscal policy initiatives. As a result of appropriate implementation of proper fiscal policies, the consumer will have high disposable income for expenditure and savings. This study also hopes to contribute to the body of knowledge by outlining the effects of the concepts to the existing theories and the findings will be used for further research by academic professionals.

Recommendations from this study on effective fiscal policy such as increasing public spending that affect profits, as a result, investments will benefit the investors. These profits results into increase in both public and private wages which benefit the employees. In addition establishing proper fiscal policy initiatives will result to competitive credit markets thus benefiting the creditors in determining the value of lending relationships by financing credit constrained firms when credit market are concentrated because it is easier for those creditors to internalize the benefits of assisting the firms. Lastly, effective interaction between fiscal policy and macroeconomic indicators result to balanced economy which benefits the general public.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the literature review on theoretical framework, determinants of government fiscal initiatives, empirical review. It concludes with the chapter summary.

2.2 Theoretical Framework

This theoretical framework covers theories on fiscal policy. Specifically the theories are: Keynesian theory, New Classical Theory, and Classical Economics. The chapter will also review the empirical literature concerned with the study topic.

2.2.1 Keynesian Theory

Fiscal policy is based on the theories of British economist John Maynard Keynes in 1926. Also known as Keynesian economics, this theory basically states that governments can influence macroeconomic productivity levels by increasing or decreasing tax levels and public spending. Keynesian economics was developed by the British economist John Maynard Keynes during the 1930s in an attempt to understand the Great Depression. Keynes advocated increased government expenditures and lower taxes to stimulate demand and pull the global economy out of the Depression. Keynesian economics is considered to be a “demand-side” theory that focuses on changes in the economy over the short run.

Prior to Keynesian economics, classical economic thinking held that cyclical swings in employment and economic output would be modest and self-adjusting. According to this classical theory, if aggregate demand in the economy fell, the resulting weakness in production and jobs would precipitate a decline in prices and wages. A lower level of inflation and wages would induce employers to make capital investments and employ more people, stimulating employment and restoring economic growth (Kurihara, 2013).

The depth and severity of the Great Depression, however, severely tested this hypothesis. Keynes maintained in his seminal book, “General Theory of Employment, Interest and Money,” and other works, that structural rigidities and certain characteristics of market economies would exacerbate economic weakness and cause aggregate demand to plunge further (Opoku, 2014).

For example, Keynesian economics refutes the notion held by some economists that lower wages can restore full employment, by arguing that employers will not add employees to produce goods that cannot be sold because demand is weak. Similarly, poor business conditions may cause companies to reduce capital investment, rather than take advantage of lower prices to invest in new plant and equipment; this would also have the effect of reducing overall expenditures and employment (Opoku, 2014).

The proposition of Keynesian economics is that fiscal policy initiatives contribute towards stable macro economy. This can be criticized in that Keynesian focused on the demand side of the economy and did not consider the supply side of the economy.

This therefore guides the study in that it will incorporate all factors relating to macroeconomic indicators and fiscal policy imitative so as to establish the relationship that exist (Kefela, 2006).

2.2.2 New Classical Economics

This theory emerged in the 1970s as a rebirth of Classical economics. It contends that people have rational expectations about the consequences of government policies, which then negates the impact of the policies. As such, like Classical economics, the primary implication is the economy maintains full employment without the need for government intervention (Amos web, 2015).

Three different New-classical approaches emerged; the free-market approach, where markets alone are assumed to be sufficient to generate maximum welfare. The public-choice approach, which is an extreme New-classical model which emphasizes that all government is 'bad' and leads to corruption and the gradual confiscation of private property. The market-friendly approach, which suggests that, while markets work, they sometimes fail to emerge, and a government has an important role in compensating for three main market failures: missing markets, imperfect knowledge and externalities (Katiforis, 2004).

New-classical theorists rejected the Keynesian view which dominated the 1970s. Despite differences of emphasis, they have tended to agree that development is best left to markets. In particular, New-classical economists believe that, to develop, countries must liberate their markets, encourage entrepreneurship (risk taking), privatize state owned industries, and reform labor markets, such as by reducing the

powers of trade unions (Economics Online Ltd, 2015). This theory is relevant to my study because it argues that government intervention does not support economic growth hence the need to study the relationship between macroeconomic indicators and government fiscal policy initiative in Kenya.

2.2.3 Classical Economics

The granddaddy of macroeconomic theories stems from the groundbreaking work of Adam Smith, the father of modern economics. This theory is based on the notion that flexible prices ensure market equilibrium such that employment production is maintained. The primary policy implication is that government intervention is not needed to maintain economic stability (Amosweb, 2015).

Adam Smith's *Wealth of Nations* in 1776 is usually considered to mark the beginning of classical economics. The fundamental message in Smith's influential book was that the wealth of nations was based not on gold but on trade: That when two parties freely agree to exchange things of value, because both see a profit in the exchange, total wealth increases. Classical economics originally differed from modern libertarian economics in seeing a role for the state in providing for the common good.

Smith acknowledged that there were areas where the market is not the best way to serve the public good, education being one example, and he took it given that the greater proportion of the costs of these public goods should be borne by those best able to afford them. Classical economists observe that markets generally regulate themselves, when free of coercion.

Adam Smith referred to this as a metaphorical "invisible hand," which moves markets toward their natural equilibrium, when buyers are able to choose between various suppliers, and companies which do not successfully compete are allowed to fail. Smith warned repeatedly of the dangers of monopoly, and stressed the importance of competition (British Classical Economics, 2008). This theory is relevant to my study because it argues that government intervention does not support economic growth hence the need to study the relationship between macroeconomic indicators and government fiscal policy initiative in Kenya.

2.3 Determinants of Government Fiscal Initiatives

There are five determinants of government fiscal initiatives. These are gross domestic product, consumption, government expenditure, investments and net export as discussed below.

2.3.1 Gross Domestic Product

This is the primary indicator used to gauge the health of a country's economy. It represents the total dollar value of all goods and services produced over a specific time period (Trivedi, 2009).

Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as well. GDP includes all of private and public consumption, Government outlays, Investments and Exports minus Imports that occur within a defined territory. GDP is used to compare the productivity of various countries with a high degree of accuracy. Adjusting for inflation from year to year allows for the seamless comparison of current GDP measurements with measurements from

previous years or quarters. GDP popularity as an economic indicator in part stems from its measuring of value added through economic processes (Van Den Heuvel, 2009).

2.3.2 Consumption

Personal consumption expenditures (PCE) are the primary measure of consumer spending on goods and services in the economy. It accounts for about two thirds of domestic final spending and thus it is the primary engine that drives future economic growth (Chen, 2014).

Consumption is a major concept in economics and is also studied by many other social sciences. Economists are particularly interested in the relationship between consumption and income, and therefore in economics the consumption function plays a major role. Different schools of economists define production and consumption differently. According to mainstream economists, only the final purchase of goods and services by individuals constitutes consumption, while other types of expenditure, in particular fixed investment, intermediate consumption, and government spending are in separate categories. Other economists define consumption much more broadly, as the aggregate of all economic activity that does not entail the design, production, and marketing of goods and services (Prokeinova, 2014).

2.3.3 Government Expenditure

Government spending or expenditure includes all government consumption, investment and transfer payments (Alesina et al, 1998). Government expenditure is a term used to describe money that a government spends. Expenditure occurs on every

level of government, from local city council to federal organizations. There are several different types of government expenditure, including the purchase and provision of goods and services, investments, and money transfers. In a free market economy, not all basic needs are generally met by the private sector. Some goods or services may not be produced at all, while others may not be produced in enough quantity or at an affordable rate for all citizens. Much of government expenditure is involved in the creation and implementation of these goods and services. This type of government spending is referred to as government final consumption (Knight et al, 2003).

2.3.4 Investments

Gross private domestic investment is the measure of physical investment used in computing GDP in the measurement of nation's economic activity. This is an important component of GDP because it provides an indicator of the future productive capacity of the economy (Resosudarmo et al, 2002). Gross private domestic investment is an important component of GDP because it provides an indicator of the future productive capacity of the economy. It includes replacement purchases plus net additions to capital assets plus investments in inventories. Net investment is gross investment minus depreciation. Gross private domestic investment includes nonresidential investment, residential investment, and change in inventories (Lin, 2010).

2.3.5 Net Exports

Net exports are the difference between a country's total value of exports and total value of imports. Depending on whether a country imports more goods or exports

more goods, net exports can be a positive or negative value (Schott, 2008). The commercial balance or net exports is the difference between the monetary value of exports and imports of output in an economy over a certain period, measured in the currency of that economy. It is the relationship between a nation's imports and exports. A positive balance is known as a trade surplus if it consists of exporting more than importing, a negative balance is referred to as a trade deficit or informally, a trade gap. The balance of trade is sometimes divided into goods and a service balance (Easterly et al, 2000).

2.4 Empirical Review

Gabriel et al. (2014) explains that economic theory provides ambiguous predictions about the relationship between liquidity and economic growth. The study presents country specific evidence on the causality relationship between government spending and economic growth over the period 1990-2010 using quarterly data. Based on the results obtained in the study, a negative causal relationship between government spending and economic growth is evidenced. This is inconsistent with the Keynesian macroeconomic framework which states that government spending has a positive impact on the economic growth. In the study, it has been evidenced that an increase in government spending in South Africa by 1 percent leads to the reduction in economic growth by 6.5 percent. Therefore they recommended that South African government needs to restructure its spending to make it in line with its economic growth macroeconomic objectives. Kamyar (2013) explains that oil revenue and corporate tax are significant variables to measurement of consumer price index. Taxation has both positive and negative impact in economic growth and consumer price index due to increasing and decreasing inflation rate.

Nurudeen (2010) explains that rising government expenditure has not translated to meaningful development as Nigeria still ranks among world's poorest countries. The results of a disaggregated analysis reveal that government total capital expenditure (TCAP), total recurrent expenditure (TREC), and government expenditure on education (EDU) have negative effect on economic growth. On the contrary, rising government expenditure on transport and communication (TRACO) and health (HEA) results to an increase in economic growth.

Maingi et al. (2013) examined the impact of government expenditure on education and the study shows that though government expenditure on education is positively related to economic growth, it does not spur any significant change to growth. Based on this, investing in more and better distributed education in the labor force will help create conditions that could lead to higher productivity and higher economic growth. It is also necessary to adopt policies that lead to the creation of diversified, dynamic and competitive sectors capable of absorbing the more educated labor force to translate human capital into higher economic growth. The expansion of education has produced a large surplus of graduates, high unemployment and long waits for government jobs. They argued that there is need for the government to ensure a conducive and attractive environment for private investors who can absorb the large number of unemployed but educated people.

Victoria (2011) explains a healthy relationship between taxes, inflation, public expenditure and economic growth as measured by GDP. An increase in these variables results to an increase in economic growth as measured by GDP, though the level of growth fluctuates at higher levels of taxes, inflation and expenditure. Further

the findings explain that too low levels of inflation result to negative economic growth rates whereas low levels of government expenditure result to low levels of economic growth rates. More revenue and higher public expenditure resulted to higher economic growth. More and more revenue will continue increasing Kenya's GDP. Lastly the findings explained that taxes, inflation, and government expenditure have got a positive impact on economic growth.

Victoria (2011) suggested the following areas for further research, a study to be carried out to establish the relationship between government wage rates and economic growth, and a study which analyses the different compositions of government expenditure and their relationship with economic growth. Njenga (2013) examined the relationship between government expenditure and GDP growth in Kenya. A multivariate time series analysis was conducted with the emphasis on the shape of impulse response functions under VAR and causal patterns using Granger causality tests, the study shows how government expenditure and inevitably size of government interact with GDP growth. The results of the analysis indicated that even though GDP level in one period determines its own level in future periods; government expenditure actually influences GDP in the medium and long-term; similarly, government size has a positive influence on GDP only in the short run but this effect becomes negative in the long run.

2.5 Chapter Summary

The above studies reveal both positive and negative relationship between government expenditure and economic growth. From the empirical review some scholars have argued that expansion of government expenditure contributes positively to economic

growth. On the contrary, others did not support the claim that increasing government expenditure promotes economic growth, instead they assert that higher government expenditure may slowdown overall performance. Based on this conflicting results, and concern among policy makers, this study will attempt to investigate the relationship between macroeconomic indicators and government fiscal policy initiative.

Other studies reveal a healthy relationship between government expenditure, taxation and macroeconomic indicators such as gross domestic product. Government fiscal policy initiatives can therefore be measured using expenditure or taxation relative to macroeconomic indicators. The studies noted that as government expenditure and taxation increases macroeconomic indicators give a positive indication on the growth of the economy hence a positive relationship between macroeconomic indicators and government fiscal policy initiatives. Others established that the relationship between macroeconomic indicators and government fiscal policy is only positive in the short run but negative in the long run and this gives rise to contradictory results as far as the relationship between macroeconomic indicators and government fiscal policy is concerned.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, data collection, and data analysis techniques used in this study. The chapter enabled the researcher address the research objectives of the study by use of research instrument that were developed by the researcher to obtain data. In addition it enabled data analysis which was performed to complete the research work.

3.2 Research Design

Research design deals with issues relating to decisions regarding the purpose of the study (explanatory, descriptive, hypothesis testing), its location (the study setting), the type it should conform to (type of investigation), its temporal aspects (time horizon) and the level at which the data will be analyzed (Malcolm, 2003).

A descriptive research determines and reports the way things are. Descriptive data was typically collected through a questionnaire survey, an interview or by observation. On the other hand, exploratory design addresses the need that certain inquiries focus on questions that require answers in order to understand people, events and situations (Chandra, 2004). The goal of a descriptive study was to offer the researcher a profile or to describe relevant aspects of the phenomenon. Descriptive studies help understand the characteristics of a group in a given situation as well as offering ideas for further probe and research. This descriptive research design was

preferred because the study needed to establish the relationship between government fiscal policy initiatives and macroeconomic indicators.

3.3 Data Collection

Secondary data was used in this research. Secondary data refer to information gathered by someone other than the researcher conducting the current study. The study focused on data of the following selected indicators, Gross domestic product which were sourced from National Bureau of Statistics, Consumption statistics from National Bureau of Statistics, Investment Statistics from Institute of Economic Affairs, Government Expenditure from National Bureau of Statistics, Net Exports from National Bureau of Statistics (Ryan, 2002).

The data was collected through survey based secondary data. Survey based secondary data refers usually to data collected by questionnaires that have already been analyzed for their original purpose. The study focused on continuous and regular surveys and these were surveys excluding censuses, which are repeated over time. They included surveys where data are collected throughout the year, and those repeated at regular intervals (Baker, 2010).

3.4 Data Analysis

The data was analyzed using quantitative data analysis techniques. Quantitative data analysis was used on numerical primary data collected and involved the following steps; Data coding when recording, categorization and descriptive statistics which attempts to predict the values of a dependent variable given certain value of one or more independent variables. Frequencies and percentages were used to reveal

relationships between different variables. The data were logged to smoothen the variables. Test for stationarity was conducted to test how the variables were integrated. Test for Lag Length selection using Schwarz' Bayesian Information criterion was conducted. Co-integration test was conducted so as to test how the variables were co-integrated. Vector Auto regressive model was used in this analysis so as to test whether there was long run relationship between the variables. Further, post estimation analysis was conducted so as to verify the appropriateness of the model in modelling the relationship between G.D.P growth and the independent variables. Lastly Eigen value stability condition was conducted so as to estimate Vector Autoregressive model stability (Hopkins, 2008).

3.4.1 Analytical Model

This study used analytical model as,

Fiscal policy = F (consumption, investment, government expenditure, and net exports)

Then,

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

Where,

Y: is fiscal policy measured as GDP growth rate.

α : is a constant

β : is the beta coefficient

X_1 : is consumption measured as consumer price index using inflation rate which is given by $((B-A)/A)*100$. Where A is the starting number and B is the ending number.

X_2 : is investment measured as gross domestic investment using the following method,

$$P = \sum (F/S)^{(1/Y)} - 1.$$

X₃: is government spending measured as government expenditure/gross domestic product.

X₄: is net exports measured as net exports/gross domestic product.

3.4.2 Test of significance

The test of significance is a technique of distinguishing whether the observed difference connotes any real difference among the groups. The study employed the 5% level of significance, to test the significance of individual variables. The study used Granger Causality test to see whether each variable play a significant role in the model (Martyn, 2008).

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, the study presents results of data analysis and the findings. The study begins by giving descriptive statistics of the data and then proceeds to Time series data analysis. Time series plots, lag selection, Augmented Dickey-Fuller stationary test, Johansen co integration test, and Granger causality test. The data was transformed using logarithms to eliminate all the negative values for the independent variables.

4.2 Descriptive Statistics

Table 4.1 below gives the mean, median, maximum value, minimum value, skewness and kurtosis related to the data.

Table 4.1: Descriptive Statistics

	Y(GDP)	logconsump	loginvest	Loggovernexp	Lognetexp
		%	%	%	%
Mean	3.5712	3.466653	-0.0058491	6.641405	4.544912
Median	4.1035	3.360844	0.0012117	6.536915	4.4815954
Maximum	6.993	7.679666	0.0445465	7.197668	5.999563
Minimum	-1.08	1.350007	-0.1121173	2.38402	1.78651
Std. Dev	2.263564	0.9452265	0.02883578	0.791227	0.8269796
Skewness	-03453275	2.809183	-2.092952	-4.738603	-2.257657
Kurtosis	2.063284	15.57658	8.614876	25.20758	8.397552

Source: Research data (2015)

From table 4.1 above, the mean annual GDP for the period 1985 to 2014 was growing at an average rate 3.57%. Over the same period the average consumption was 3.47% of GDP with a standard deviation of 0.95, while the average Investments was -0.006% with a standard deviation of 0.03. The average government expenditure was 6.64% with a standard of 0.79. Lastly average Net exports were 4.54% with a standard deviation of 0.83.

The median annual GDP for the period 1985 to 2014 was 4.10 with government expenditure having the highest annual median of 6.54. The maximum annual GDP for the period 1985 to 2014 was 6.99 with consumption having the highest annual maximum. The minimum annual GDP for the period 1985 to 2014 was -1.08 with investments having the lowest annual minimum. The annual GDP was negatively skewed as well as investments and government expenditure. Net exports and consumption were positively skewed.

4.3 Correlation Analysis

Table 4.2 below gives the correlations between the variables.

Table 4.2: Correlation Analysis

	Y(gdp)	logcon	loginv	loggov	logexp
Y(gdp)	1				
logcon	-0.1061	1			
loginv	-0.1287	-0.242	1		
loggov	0.1963	-0.1144	-0.0074	1	
logexp	0.0293	0.1276	-0.0867	-0.4098	1

Source: Research data (2015)

Annual GDP is negatively correlated to consumption and investments, while government expenditure and net exports are positively correlated to annual GDP. Consumption is negatively correlated to investments and government expenditure. It is positively correlated to net exports. Investments are negatively correlated to government expenditure and net exports. Government expenditure is negatively correlated to net exports.

4.4 Time Series Analysis

The study used time series econometric models for data analysis. The first step was the selection of an appropriate lag length. Time series plots, Augmented Dickey Fuller stationarity test and Johansen co integration test were then employed.

4.5 Testing for Stationarity

Testing for stationarity of Time Series data is important to avoid spurious regression. To test for stationarity of the variables, the Augmented Dickey Fuller (ADF) (1979) test was conducted. The results of the Augmented Dickey Fuller (ADF) stationarity test are indicated in table 4.2 below. From the table Y (GDP), log consumption, log investment and log government expenditure are stationary at 5% confidence level. However log net exports are non-stationary in both cases.

Table 4.3: ADF Stationarity Test for Variables

Augmented Dickey-Fuller			
Variable	Test Statistic	5% Critical Value	p-value
<i>Y(GDP)</i>	3.251	2.989	0.0172
<i>Log consumption</i>	4.857	2.992	0.0000
<i>Log investment</i>	10.256	2.992	0.0000
<i>Log governexpen</i>	5.026	2.989	0.0000
<i>Log net export</i>	2.655	2.989	0.0822

Source: Research data (2015)

Following these results, stationarity test was conducted after the first difference for further analysis. The findings of the ADF stationarity test for the first difference variables are presented in table 4.3 below. The results indicate that all the variables are stationary after the first difference indicating that the variables are integrated to order one, (1).

Table 4.4: ADF Stationarity Test for First Difference Variables (No Trend)

Variable (First Difference)	Test Statistic	5% Critical Value	p-value
<i>Y(GDP)</i>	7.289	2.992	0.0000
<i>Log consump</i>	9.088	2.994	0.0000
<i>Log invest</i>	10.135	2.994	0.0000
<i>Log govern exp</i>	8.727	2.992	0.0000
<i>Log net expo</i>	5.785	2.992	0.0000

Source: Research data (2015)

The next procedure was lag selection using various criteria as presented below.

4.6 Lag Length Selection

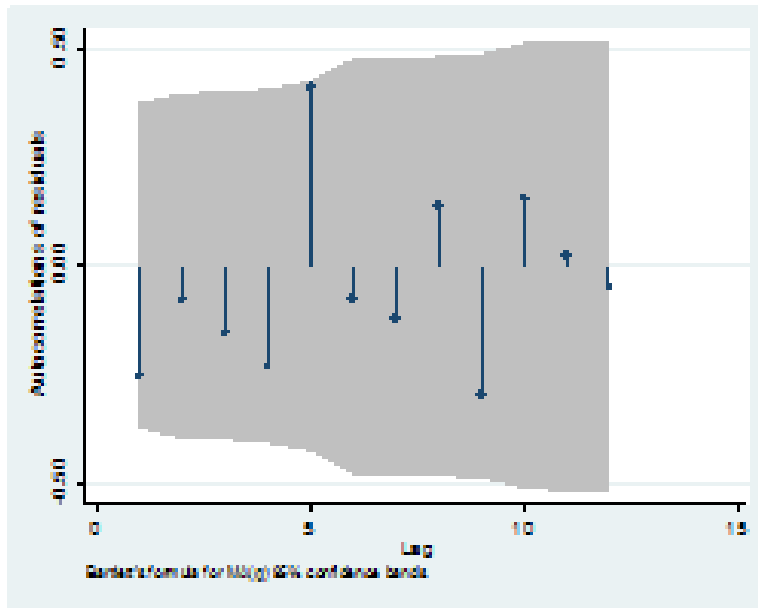
Lag selection criteria can be conducted using various methods including the Hannan-Quin information criterion (HQIC), Log-Likelihood Ratio (LR), SIC Schwarz' Bayesian Information Criterion (SBIC), Akaike information criterion (AIC) and Final prediction error criterion (FPE). In the event of conflict, a correlogram of residuals can be plotted and the lag length chosen where the correlogram is statistically insignificant. The results for lag length selection are shown in table 4.5 below.

Table 4.5: Results of Lag Length Selection

lag	LL	LR	df	P	FPE	AIC	HQIC	SBIC
0	-52.8561				6.02593	4.62848	4.6961	4.87226*
1	-51.6164	2.4793	1	0.115	5.93569*	4.60931*	4.69045*	4.90184
2	-51.6151	0.00254*	1	0.960	6.4669	4.68921	4.78387	5.0305
3	-51.5702	0.0899	1	0.764	7.03594	4.76561	4.87379	5.15565
4	-50.7752	1.59	1	0.207	7.2276	4.78201	4.90372	5.22081

Source: Research data (2015)

From the results above, the lowest information criterion for FPE, AIC and HQIC is lag 1 for LR is lag 2 but lag 0 according to SBIC. Since there is no clear lag length from the table, a correlogram of residuals was plotted as below. At the selected lag, all the correlograms must be statistically significant and thus all autocorrelations should fit within the given limit. The plot indicated that lag 0 is the optimal lag length (See Appendix 1). After lag length selection, the next step was to test for co integration.



Source: Research data (2015)

Figure 4.1: Correlogram of the Residuals

4.7 Co-integration test

Table 4.6: Johansen Co integration Test.

Maximum rank	parms	LL	Eigenvalue	trace statistic	5% Critical Value
0	105	.	.	.	68.52
1	114	.	1.0000	.	47.21
2	121	.	1.0000	.	29.68
3	126	.	0.0000	.	15.41
4	129	.	0.0000	.	3.76
5	130	.	-0.0000		

Source: Research data (2015)

In order to determine the long run relationship between Y (GDP), log consumption, log investment, log government expenditure and log net exports the variables were tested for co integration using the Johansen Co integration test.

The test aimed to determine if the variables move together towards a long run equilibrium. The test provided the results shown in table 4.6 above. These results indicate that the variables are not co integrated. The results show that there is no long run relationship between the variables in the model and thus, the Vector Autoregressive Model would be the most appropriate for modeling the effect of Y (GDP growth) on economic growth.

4.8 Vector Autoregressive Model

From the results of the Johansen Test, there is no co integration amongst the variables indicating absence of a long-run relationship. Based on that, the Vector Autoregressive Model was used to model the relationship between GDP growth and, consumption, investments, government expenditure and net exports as presented in the table 4.7 below.

Table 4.7: Vector Autoregressive Model

	Coef.	Std. Err.	P>z	[95% Conf.	Interval]
Y(GDP)					
L1.	-0.28006	0.183807	0.128	-0.64032	0.080193
L2.	-0.0101	0.172324	0.953	-0.34785	0.32765
logcons	0.153512	0.373804	0.681	-0.57913	0.886153
loginves	11.07658	10.83792	0.307	-10.1654	32.31852
Loggover exp	0.611904	0.413053	0.138	-0.19766	1.421472
Lognet exp	1.835619	0.535602	0.001	0.785858	2.88538
_cons	0.050187	0.35612	0.888	-0.64779	0.748169

Source: Research data (2015)

From table 4.8 above, the VAR equation, GDP growth, consumption, investments, government expenditure & net exports for Kenya in the period 1985 to 2014 is given as:

$$Y (\text{GDP growth}) = 0.050187 + 0.154 \log \text{consump} + 11.076 \log \text{invest} + 0.6119 \log \text{gover exp} + 1.8356 \log \text{net exp} \dots 4.1$$

Table 4.9 indicates that only net exports are significant since in, $P > |z|$ is less than 5 %.

From the table above, when GDP growth is autonomous it is at 0.050187%. One unit of change in consumption results to a 0.154% change in GDP. One unit change in investments results to 11.076% change in GDP. One unit change in government expenditure results to 0.6119% change in GDP. Lastly one unit change in net exports results to 1.8356% change in GDP. These results are consistent with theory and literature in that they support the proposition that fiscal policy initiatives contribute towards stable macro economy since all the variables are positive.

4.9 Post Estimation Analysis

Post estimation analysis of the model was conducted to verify the appropriateness of the model in modeling the relationship between GDP growth and the independent variables.

The study used Granger causality test to see whether each variable plays a significant role in the model.

Table 4.8: Granger Causality Test

Equation	Excluded	Chi2	Df	Prob>chi2
1	ALL	19.954	6	0.003

Source: Research data (2015)

Table 4.9: Eigen value stability condition

Eigen value	Modulus
-0.2375461	0.237546
-0.04251513	0.042515

Source: Research data (2015)

The results show that we cannot reject the Y (GDP) Granger cause on consumption, investments, government expenditure & net exports. The study then checked the stability conditions of the specified Vector Autoregressive Model so as to see if the VAR equations were well specified. The results are presented in table 4.9 above. The results of the modulus of each Eigen value are strictly less than one leading to the conclusion that the estimated Vector Autoregressive Model is stable. The graph of the Eigen values which is presented in figure 4.2 below clearly show that all the remaining Eigen values are within the unit circle. The conclusion from the stability check is that the model is not mis-specified.

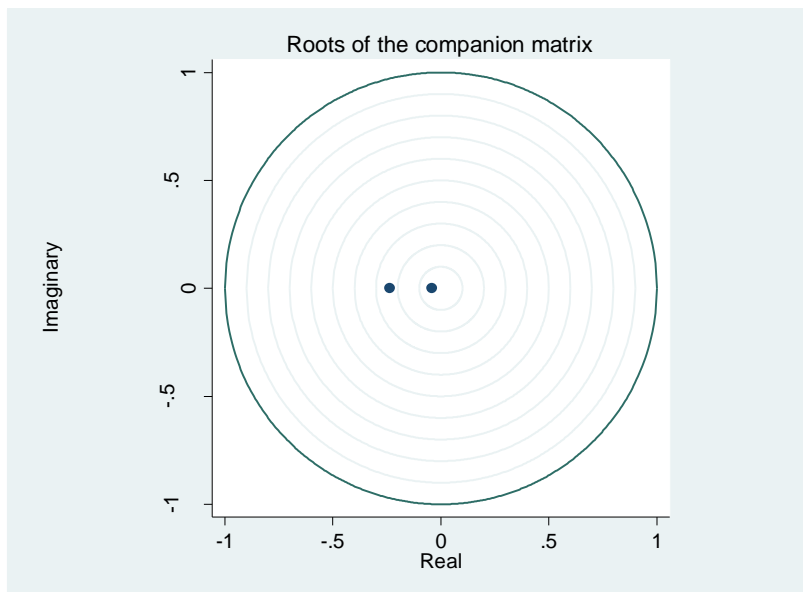


Figure 4.2 Roots of the companion matrix

4.10 Macroeconomic indicators and government fiscal policy

Linear regression analysis was conducted to determine the relationship that exists between government fiscal policy and macroeconomic indicators.

Table 4.10 Government fiscal policy and macroeconomic indicators

dY(GDP)	Coef.	P>t	[95% Conf.	Interval]
logconsump	0.430203	0.237	-0.30206	1.162462
loginvestm	7.294398	0.496	-14.5205	29.10927
Loggoven exp	0.310869	0.477	-0.57921	1.200951
Lognet exp	1.85727	0.004	0.667061	3.04748
_cons	0.016183	0.968	-0.81624	0.848605

Source: Research data (2015)

$$Y \text{ (GDP growth)} = 0.016183 + 0.430203\text{consump} + 7.294398\text{invest} + 0.310869\text{govern exp} + 1.85727\text{net expo}$$

When GDP growth is autonomous is at 0.16183%. One unit change in consumption results into 0.430203% change in GDP. One unit change in investments results to 7.294398% change in GDP. One unit change in government expenditure results to 0.310869% change in GDP. Lastly one unit change in net exports results to 1.85727% change in GDP. These results are consistent with theory and literature in that they support the proposition that fiscal policy initiatives contribute towards stable macro economy since all the variables are positive.

4.11 Discussion of the findings

The researcher compared other studies with the present one and found out that a study done by Nurudeen (2010) explained that total capital expenditure and total recurrent expenditure on transport, communication and health resulted into an increase in economic growth. In the present study, descriptive statistics indicate that variations of all the variables from the annual GDP rate were moderate, annual GDP average rate for the period was 3.57%, compared to average consumption of 3.47%, average investment of -0.006%, average government expenditure of 6.64%, and average net exports of 4.54%, which do not deviate significantly from annual GDP average rate.

This indicates a positive relationship between gross domestic product and consumption, investments, government expenditure and net exports. The two studies show that there is a positive relationship between macroeconomic indicators and government fiscal policy imitative. A study done by Victoria (2011) was consistent with the present study in that a health relationship between taxes, inflation, public expenditure and economic growth existed as measured by GDP. An increase in these variables resulted to an increase in economic growth as measured by GDP, though the levels of growth fluctuated at higher levels of taxes, inflation and expenditure.

In the present study, using vector auto regressive model the results depicted that an increase in independent variables, consumption, investment, government expenditure, and net exports resulted into an increase in GDP as follows, one unit change in consumption resulted to 0.154% change in GDP, One unit change in investments resulted to 11.076% change in GDP, One unit change in government expenditure resulted to 0.6119% change in GDP, Lastly one unit change in net exports resulted to 1.8356% change in GDP.

In addition using linear regression analysis technique gave similar results that increase in independent variables, consumption, investments, government expenditure and net exports led into an increase in GDP as follows, one unit change in consumption resulted to 0.430203% change in GDP, one unit change in investments resulted to 7.294398% change in GDP. One unit change in government expenditure resulted to 0.310869% change in GDP, Lastly one unit change in net exports resulted to 1.85727% change in GDP. The two studies show that there is a healthy relationship between consumption, investments, government expenditure, net exports and gross domestic product hence consistent with Victoria (2011) findings. Other studies which had similar findings with the present study include one done by Gabriel et al (2014) which found a negative causal relationship between government spending and economic growth.

The results indicated that an increase in government spending in South Africa by 1 percent led to a reduction in economic growth by 6.5 percent. This was consistent with the results of the present study in that correlation analysis indicated that gross domestic product was negatively correlated to consumption and investments. Kamyar (2013) explained that taxation had both positive and negative impact in economic growth and consumer price index due to increasing and decreasing inflation rate.

In the present study correlation analysis show consistent outcome in that GDP is negatively correlated to consumption and investments and positively correlated to government expenditure and net exports giving both positive and negative indicators.

Maingi et al (2013) explained that although government expenditure on education was positively related to economic growth, it did not spur any significant change to growth. In the present study, co integration test indicated that there was a short run relationship between GDP and consumption, investments, government expenditure, and net exports and this was consistent with the above study in that long run relationship did not exist hence significant change to growth could only be realized in the short run.

Eigen value stability tests conducted indicated that the model was stable thus supporting the above short run relationship between the variables. The government need to consider the impact of government fiscal policy imitative on macroeconomic indicators by incorporating sound fiscal policy imitative in its medium term economic plans so as to realize the short run benefits resulting from the present study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the finding of the research report in chapter four and reports knowledge that has not been reported in any literature. Conclusions and recommendations are presented in the chapter. The findings were compared with other studies done in Kenya and other parts of the world.

5.2 Summary of findings

The general objective of this study was to investigate the relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya, Using both autoregressive and linear regression models for the data from 1985 to 2014. Government fiscal policy initiatives were measured in terms of GDP growth and its components which for the purpose of this study were consumption, investments, government expenditure and net exports. An insight into the characteristics of the data was presented by descriptive statistics.

Consumption and investment were negatively correlated with annual GDP and government expenditure and net exports were positively correlated with annual GDP growth. The study used econometric data analysis. Stationarity for the data was then tested using augmented dickey fuller (1979) test. After the first difference all variables were found to be stationary. Lag length selection for the data was then tested using various techniques and the results indicated no clear lag length. As a result of no clear lag length a correlogram was plotted and lag zero was identified as optimal.

Co integration test was tested using Johansen co integration test and it indicated that the variables were not co integrated. As a result of no co integration between variables vector auto regression model was used for modeling the effect of GDP on economic growth and the results indicated that increase in GDP had a positive effect on all independent variables. Post estimation analysis of the model was conducted to verify the appropriateness of the model and the results indicated that we cannot reject Y (GDP) cause on consumption, investments, government expenditure and Net Exports.

Stability of vector auto regression model was also tested and the results of the modulus of each Eigen value were strictly less than one leading to the conclusion that the estimated vector auto regression model was stable. The results of linear regression analysis indicated that there is a positive relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya since all variables are positively related but on the short run. Also results after co integration and vector auto regression analysis support the above positive relationship in the short run. In conclusion therefore the results suggested that the relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya holds in the short run since there is no co integration amongst the variables indicating absence of a long run relationship.

5.3 Conclusion

From the data analysis there is a significant positive relationship between GDP growth and consumption, investments, government expenditure and net exports. Keynes advocated that increased government expenditures and lower taxes stimulate demand, and pull the global economy out of the depression. Keynesian economics is

considered to be a demand-side theory that focuses on changes in the economy over the short run. This supports the finding of the study since co integration analysis conducted indicated that there was no long run relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya. Studies conducted by Nurudeen (2010) explained that rising government expenditure on transport, communication and health results to an increase in economic growth. Victoria (2011) explained that there is a healthy relationship between taxes, inflation, public expenditure and economic growth as measured by GDP.

Maingiet al. (2013) explained that government expenditure on education positively related to economic growth but did not spur any significant change to growth. Likewise Kaymar (2013) explained that taxation has both positive and negative impact in economic growth and consumer price index due to increasing and decreasing inflation rate. Gabriel (2014) explained that a negative causal relationship between government spending and economic growth was evidenced and this was inconsistent with the Keynesian macroeconomic framework which states that government spending has a positive impact on the economic growth. The results of the researcher support the Keynesian notion. Further the results indicated that an increase in variables resulted to an increase in economic growth as measured by GDP.

These findings can be attributed to proper fiscal policy initiatives which translate to desired macroeconomic indicators. Consumption and Investments are negatively correlated to GDP growth while Government Expenditure and Net Exports are positively correlated to GDP growth. From the vector auto regression model analysis all variables relate positively to GDP growth thus giving a positive relationship. In

addition, analysis using linear regression model also indicate that all variables relate positively to GDP growth thus supporting the proposition that there is a positive relationship between macroeconomic indicators and government fiscal policy initiatives. Eigen value stability condition conducted indicated that the equation was stable thus its suitability for conducting this study.

5.4 Limitations of the study

The researcher experienced various limitations while undertaking the study. It is therefore important to highlight the limitations that the researcher experienced so as to fully understand the implications of research findings.

Although the Kenya National Bureau of Statistics was willing to release official figures of government expenditure, net exports, investments and consumption the data could not be traced from their websites thus it required extraction from their manuals. In addition data relating to taxation was unavailable thus the study utilized only expenditure data. The model used to analyze the data was also a challenge. The model is complicated and use of computer aided software was necessary especially in carrying out autoregressive analysis of the variables. A lot of time was spent on data analysis and to carry out the whole research. The researcher even had to learn how to analyze data using auto regression model which was time consuming and very involving.

The other limitations include financial resource constraints. This inhibited the researcher from carrying out in depth analysis in areas such as determining whether long run relationship does exist by utilizing superior software's. Therefore although

the results indicates that a short run relationship does exist we cannot confirm that a long run relationship does not exist by depending on the results of models used only thus the need to carry out many studies on the subject matter using different techniques as well as large sample size so as to affirm the current views.

There are few studies which have been conducted on the relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya and this posed a major limitation. This was a challenge in that getting information relating to the above subject was not easy and a lot of time was spent searching for information which could assist in the study. In addition even global studies on the same were limited and this also posed some challenges as far as comparison of research studies regionally and locally is concerned.

5.5 Recommendations

The researcher recommends that fiscal policy issues should be formulated in order to ensure optimal economic growth is achieved as measured by macroeconomic indicators. The government should ensure that public expenditure allocations are concentrated to those sectors that lead to higher levels of economic growth. This includes allocating more funds to infrastructure development, education and security. The effect is that with issues like infrastructure development addressed, the country will be open to more investments hence increasing our GDP. The government through its policy formulation should cut down recurrent expenditures which reduce the allocation on capital and development expenditures. This can be achieved through proper public funds management as well as allocating funds to critical sectors and holding accounting officers reliable for any misuse of public funds.

The researcher recommends that various policy issues on taxation, expenditure and borrowing need to be out in place to ensure economic growth is achieved. Over the years issues relating to economic stability and growth have been the order of the day but nothing much has been achieved. This therefore means that policy framework with regard to taxation, expenditure and borrowing is improper and that is why we have not achieved the desired macroeconomic indicators meaning that we are facing a lot of economic challenges which can be resolved by looking at our policy framework and align it to current economic situations.

Lastly the researcher recommends that implementation of the authority to incur expenditure on development projects should be monitored and adjusted to be in line with the required proportion of GDP. This is because a lot of development projects have been implemented and they have not spurred any meaningful economic change since we are still facing the same challenges as before the implementation of these projects. This indicates that either we are not implementing the desired projects to affect macroeconomic indicators or the projects are not been implemented as required. Therefore intensive monitoring of the projects should be conducted so as to ensure desired results are achieved.

5.6 Suggestions for further studies

This study was to establish the relationship between macroeconomic indicators and government fiscal policy initiatives in Kenya. In the course of the study, the researcher identified areas which could be studied to give some highlight of the relationship using different analyzing model. A study should be carried out to establish the relationship between macroeconomic indicators and taxation in Kenya,

with the current situation in Kenya, where cash crunch is experienced and every person is agitating for money there is a need to identify whether effects of taxation contributes to macroeconomic stability. It would be also necessary to carry out a similar study which analyzes the relationship between macroeconomic indicators and borrowing and their effect on economic growth. These studies should focus on individual macroeconomic indicators against individual components of borrowing.

A study should be carried out to establish the relationship between different components of government expenditure and individual macroeconomic indicators. This will provide some insight on how each macroeconomic indicator relates with each component of government expenditure so as to enable government decisions makers to formulate fiscal policies that correlate positively with macroeconomic indicators as well as those which contribute towards economic stability and growth. This will also enable foster academic progress by encouraging academic professionals to publish locally on the above areas.

A study should be carried out to establish the relationship that exists between different taxes and individual macroeconomic variables. This is critical because there are a number of taxes collected and it would be important to establish how they interact with macroeconomic indicators so as to examine whether they are relevant in terms of fostering economic growth or not. This also will enable the tax authorities to review the tax structure so as to conform to current economic situations as well as give a reflection of the desired macroeconomic indicators.

REFERENCES

- Abel, A. B. (2008). *Macroeconomics* 7th Edition.
- Alesina, A., & Wacziarg, R. (1998). Openness, country size and government. *Journal of public Economics*, 69(3), 305-321.
- Amosweb, S. (2015), *Macroeconomic theories*. Classical and Keynesian Theories.
- Baker, H. K., Singleton, J. C., & Veit, E. T. (2010). *Survey Research in Corporate Finance: Bridging The Gap Between Theory and Practice*. Oxford University Press. Oxford.
- Bowley, M. (2013). *Nassau Senior and classical economics*. Routledge. British Classical Economics 2nd Edition.
- Chen, J. M. (2014). Indexing Inflation: The Impact of Methodology on Econometrics and Macroeconomic Policy. *Central Bank Journal of Law and Finance*, 1.
- Chipaumire, G., Ngirande, H., & Ruswa, Y. (2014). The Impact of Government Spending on Economic Growth: Case South Africa. *Mediterranean Journal of Social Sciences*, 5(1), 109.
- Chandran, E. (2004). *Research methods: A quantitative approach with illustrations from Christian ministries*. Daystar University.
- Dornbusch, R., Fischer, S., Startz, R. (2004). *Macroeconomics*, 9th Edition, McGraw – Hill/Irwin.

- DeLong, J. B., Summers, L. H., Feldstein, M., & Ramey, V. A. (2012). Fiscal policy in a depressed economy [with comments and discussion]. *Brookings Papers on Economic Activity*, 233-297.
- DeLong, J. B., Summers, L. H., Feldstein, M., & Ramey, V. A. (2012). Fiscal policy in a depressed economy [with comments and discussion]. *Brookings Papers on Economic Activity*, 233-297.
- Engen, E. M., & Skinner, J. (1992). *Fiscal policy and economic growth* (No. w4223). National Bureau of Economic Research.
- Edward, N. (2013), Government Expenditure and Economic Growth in Kenya 1963-2008.
- Economic online ltd, (2015). The relationship between unemployment and inflation in an economy.
- Easterly, W., & Kraay, A. (2000). Small states, small problems? Income, growth, and volatility in small states. *World development*, 28(11), 2013-2027.
- Glenn, S. E. T. (2006). Will, Year 10 student. NSW, 1(2P), 14830.
- Geek, W. (2013). An Undated Website Document. What Is Data Storage.
- Gray, J. D., & Miller, J. M. (2011). Intermediate macro texts and the economic crisis of 2008-09. *International Review of Economics Education*, 10(1), 133-147.
- Gupta, S., Verhoeven, M., & Tiongson, E. R. (2002). The effectiveness of government spending on education and health care in developing and transition economies. *European Journal of Political Economy*, 18(4), 717-737.

- Glare, P., Virik, K., Jones, M., Hudson, M., Eychmuller, S., Simes, J., & Christakis, N. (2003). A systematic review of physicians' survival predictions in terminally ill cancer patients. *Bmj*, 327(7408), 195.
- Hopkins, A. L. (2008). Network pharmacology: the next paradigm in drug discovery. *Nature chemical biology*, 4(11), 682-690.
- Katiforis, G. (2004). 7. Keynes as a bourgeois Marxist. *The Rise of the Market*, 181.
- Kefela, D., & Ghirmai, T. (2006). Fiscal Policy and Its Impact; A Discussion and Analysis of the United States and Developing Countries.
- Knight, D. I., Caldwell, D. N., Harland C & Telgen, J. (2003). government reform and public procurement.
- Kurihara, K. K. (2013). *Post-Keynesian Economics*. Routledge.
- Keynes, J. M. (1930). *The great slump of 1930*.
- Keynes, J. M. (1926). *The end of laissez-faire* (Vol. 16). London: Hogarth Press.
- Lin, E. (2010). Transport Infrastructure and Economics Growth-Determining the Effect of Investment in Transport Infrastructure on Gross Domestic Product.
- Muthui, J. N., George, K., James, M., & Thuku, G. K. (2013). The Impact of Public Expenditure Components on Economic Growth in Kenya 1964-2011. *International Journal of Business and Social Science*, 4(4).
- M'Amanja, D., & Morrissey, O. (2005). *Fiscal policy and economic growth in Kenya* (No. 05/06). CREDIT Research Paper.

- Melina, G., & Villa, S. (2014). Fiscal policy and lending relationships. *Economic Inquiry*, 52(2), 696-712.
- Nurudeen, A., & Usman, A. (2010). Government expenditure and economic growth in Nigeria, 1970-2008: A disaggregated analysis. *Business and Economics Journal*, 2010, 1-11.
- Opoku Agyemang, P. (2014). Economic Importance of Keynesian and Neoclassical Economic Theories to Development. *Economic Importance of Keynesian and Neoclassical Economic Theories to Development*.
- Prokeinova, R. B. (2014). Consumption of Foodstuff as a Better Indicator of the Responsible Sustainability: Case Study about Slovakia.
- Radnia, K. (2013). The Relationship between Inflation Rate, Oil Revenue and Taxation in IRAN: Based OLS Methodology. *Journal of Economics and Sustainable Development*, 4(19), 131-146.
- Ryan, B., Scapens, R. W., & Theobald, M. (2002). Research method and methodology in finance and accounting.
- Resosudarmo, B. P., Alisjahbana, A., & Brodjonegoro, B. P. (Eds.).(2002). *Indonesia's sustainable development in a decentralization era*. Irsa.
- Shuttleworth, M. (2008). Qualitative Research Design.
- Sachs, J. D., Cooper, R. N., & Fischer, S. (1981). The current account and macroeconomic adjustment in the 1970s. *Brookings Papers on Economic Activity*, 201-282.

- Schott, P. K. (2008). The relative sophistication of Chinese exports. *Economic policy*, 23(53), 5-49.
- Simon and Robert, (2015). *Macroeconomic indicators*. Economic indicators that really matter.
- Trivedi, P. (2009). Economic Growth of India. *e-track*, 15.
- Thuo, V. W. (2013). *Effects of government expenditure, taxes and inflation on economic growth in Kenya: a disaggregated time series analysis* (Doctoral dissertation, University of Nairobi).
- Thugge, K., Heller, P. S., & Kiringai, J. (2011). Fiscal Policy in Kenya: Looking Toward the Medium-to Long-Term. *Kenya: Policies for Prosperity*, 83.
- Van den Heuvel, L. P. (2009). Where to invest and what to pay in emerging Southeast Asia.

APPENDICES

APPENDIX II: DATA COLLECTION INSTRUMENT

Years	Variables				
	Gross Domestic Product-costant prices	Consumption	Investment	Government Expenditure	Net Exports
1985	4.073	2876	26.4	15512000000	-1.717
1986	6.982	4595	23.6	17602000000	-0.646
1987	5.811	4083	24.375	21518200000	-7.888
1988	6.091	4661	24.663	24354000000	-8.388
1989	4.554	5331	18.983	27292800000	-13.62
1990	4.134	6112	23.719	30769200000	-10.538
1991	1.339	6971	20.992	36620000000	-3.969
1992	4.134	8487	15.07	37606400000	-3.18
1993	1.339	9856	16.688	41475200000	9.57
1994	-1.08	12154	14.898	48306800000	-0.825
1995	-0.095	15983	14.708	60719400000	-25.959
1996	2.531	359441	12.53	69056800000	-10.976
1997	4.287	453176	13.459	104442000000	-26.55
1998	4.011	510082	12.788	119677000000	-32.391
1999	0.22	537861	10.877	138256000000	-14.04
2000	3.33	602353	14.679	142871000000	-15.323
2001	2.407	811793	16.761	145701000000	-24.96
2002	0.599	814361	12.003	162959000000	-9.204
2003	4.726	875154	13.125	176821000000	10.032
2004	0.299	963410	14.432	205207000000	-10.56
2005	2.785	1082877	16.912	227596000000	-19.152
2006	4.616	1217635	17.947	246056000000	-39.27
2007	5.981	1385833	19.075	285056000000	-70.176
2008	6.326	1572761	19.518	327918000000	-134.84
2009	6.993	1850699	19.4	347262000000	-131.74
2010	1.528	1985066	21.87	383847000000	-189.52
2011	2.645	2350129	20.39	449339000000	-325.55
2012	5.552	2657187	21.24	538541000000	-365.76
2013	5.743	2846328	20.41	668246000000	-411.77
2014	5.275	2975619	21.14	733738000000	-504.36