EFFECTS OF RECURRENT PUBLIC EXPENDITURE
ON ECONOMIC GROWTH IN KENYA

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Abstract

The purpose of this study was to find out the effect of recurrent public expenditure on economic growth in Kenya from 1980-2014. The specific objectives of this study were to disaggregate recurrent public expenditure into: government expenditure on social services, government expenditure on general public administration, government expenditure on debt and to find out the impact on economic growth in Kenya. This disaggregates were the independent variables while real gross domestic product was the dependent variable. The study used time series data covering the period 1980 – 2014. It employed Augmented Dickey Fuller test for unit root tests before using autoregressive distributed lag approach to test cointegration. The study findings indicated that; there was a long-term relationship between recurrent public expenditure and economic growth in Kenya. Recurrent public expenditure on government social services and government expenditure on debt showed a positive relationship towards growth while government recurrent expenditure on administration showed a negative relationship. However, government expenditure on debt and administration were statistically insignificant while government recurrent expenditure on social services was statistically significant in driving economic growth. The above finding should be used by the policymakers to ensure more funds are allocated to recurrent budgets in the social sectors. The study also dispels the belief that recurrent public expenditure components are always growth retarding in Kenya.

Keywords: Disaggregates, Economic Growth, Recurrent Public Expenditure, Social Sectors

INTRODUCTION

Public expenditure can be broadly classified in terms of purpose as development and recurrent expenditure. Development expenditure is expenditure on capital goods and projects that are meant to increase the national output. Recurrent expenditure is a recurring spending on items that are consumed only for a limited period of time. In the case of the government, recurrent expenditure includes wages, salaries and expenditure on consumables - stationery, drugs for health service, bandages and among others, Modebe (2012). Increasing recurrent expenditure remains a challenge to many governments because the government is a major consumer of goods and services in the economy. The relationship between public expenditure and economic growth is a key subject of debate for economists and policymakers (Stiglitz, 2000).Economic growth represents the expansion of a country's potential GDP or output. Economic growth is important for jobs creation and poverty reduction in an economy. Consequently, the need to stimulate economic growth through fiscal and monetary policies is, arguably, the best way to break the vicious cycle of poverty in developing countries including Kenya. In this context, understanding the impact of public expenditure becomes crucial if policymakers are to come up with expenditure priorities that accelerate economic growth.

Government expenditure has been seen as a key driver of productivity in the economy hence encouraging economic growth. In Kenya, Muthui et al (2013) finds results that show that some components of public expenditure have positive and negative impacts on economic growth. He specifically finds out that health, public order, security and education are positively correlated to economic growth while defense expenditures are negatively correlated. Controversially, Simiyu (2015) carried out a study to explain the relationship between public expenditure and economic growth in Kenya using Vector Error Correction Model. In her study, she found out that there was no causal relationship between public expenditure and economic growth in Kenya. According to the Keynesian theories, government expenditure should promote productivity but it has been an impediment just because of the way it is financed and allocated among sectors. Public borrowing and imposition of taxes as a means of financing results to crowding out of private investments and scaring away of potential investors respectively. This study aims at investigating on the effect of recurrent public expenditure on economic growth in Kenya and covers the period 1980-2014.

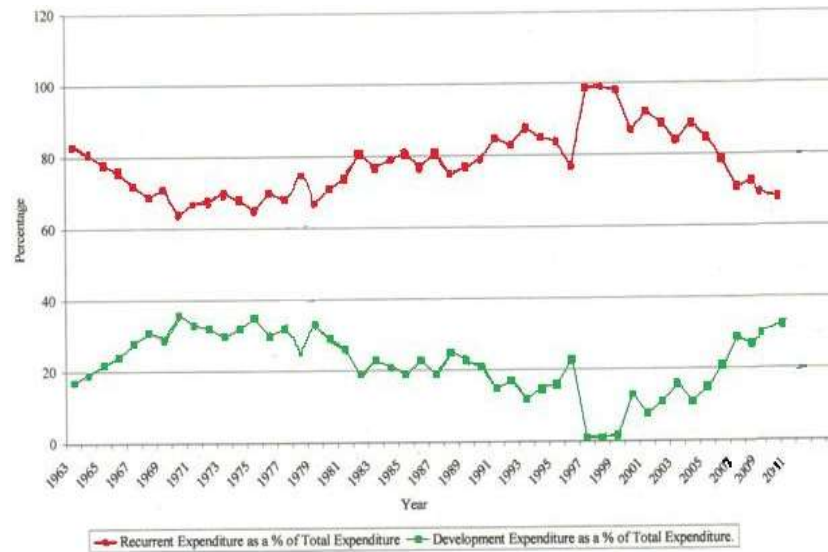## Government Expenditure in Kenya

During the initial years of independence, the movements of recurrent and development expenditure were converging and these were the years Kenya recorded an upward growth performance. For instance, there was an upward trend in development expenditure, reaching 36

percent of public expenditure in 1970 compared to 17 percent in 1963. This increase was attributed to increase in the construction costs (Republic of Kenya, 2003). During this period, the country was rebuilding and large amounts of money were spent on infrastructure and services. There was a huge expenditure on electricity, roads, telecommunications and airport expansion. A lot of money was also spent on resettlement, nationalization and agricultural development. The proportion of development expenditure remained, on average 32 percent of total expenditure from 1972-1979, but began to decline thereafter and stagnated at about 19 percent of total government expenditure between 1982 -1996. A sharp decrease to less than 5 percent between 1999 and 2002 was witnessed. The shrinking trends in development expenditure may be blamed on the austerity measures by World Bank's in form of Structural Adjustment Programmes (SAPs) or through International Monetary Fund (IMFs) stabilization programmes. Since most recurrent expenditure is fixed the only leeway the government had in the wake of these austerity measures was its development budget (M'Amanja and Morrissey, 2005).

Finally, development expenditure showed an upward trend between 2003 and 2007. This was because of increased infrastructural expenditure in areas of roads, telecommunication, health and education, rehabilitation of airport in Nairobi, Mombasa and Kisumu. Recurrent expenditure showed a declining trend from about 80 percent of total expenditure in 1963, to about67 percent in 1971. This is because most expenditure in education and health were in the hands of the local authorities. From 1979 there was an upward trend in recurrent expenditure up to 88 percent of expenditure in 1993, which later dropped to 77 percent of government expenditure in 1996. This could be attributed to drought of 1980, compensation to Uganda government for the assets it lost to Kenya due to collapse of East African Community, increased expenditure on education since responsibility was transferred from local authority to central government.

Education expenditure also increased due to expansion of educational physical facilities, expanded curricular and increased demand for teachers wage bill as a result of implementation of 8-4-4 system of education. The proportion of recurrent expenditure reached over 90 percent between 1997-2000, due to large expenditure incurred to finance the general election of 1997 and higher salary rewards to teachers and civil servants. Thereafter it declined; reaching below 71 percent in 2007.The decline was as a result of government refocusing its expenditure in favor of development, operations, maintenance and reduction of wage related expenditures. The composition of government development (lower line) and recurrent expenditure (upper line) as a percentage of total expenditure is captured in figure below;

Figure 1: Public expenditure in terms of development and recurrent expenditure in Kenya.

Source; Kenya National Bureau of Statistics, 2015

Recurrent Expenditure Reforms in Kenya

Since independence, various government expenditure reforms have been implemented to raise and sustain the economic growth rate of the country. The public sector contributes to GDP growth rate through provision of government services such as education, health and administration, and productive activities in areas of agriculture, manufacturing, transport and communication and trade. The government plays a leading role in determining the pattern of financing its' operations through public sector reforms, which determine directly how much of the country should borrow and how those resources should be allocated in order to enhance economic growth. The main government expenditure strategy has been restructuring and rationalizing overall expenditure.

During the planning periods 1979-2001, the government undertook rationalization of government expenditure, with more resources being channeled to development and recurrent non-wage operating and maintenance expenditure in order to stimulate economic growth (Republic of Kenya, 1997).The central thrust of the policy was to rely on market forces to mobilize resources for economic growth and development, with the role of government increasingly confined to providing an effective regulatory framework and essential public infrastructure and social services. The other major change in budget allocation involved a concerted effort to make all government outlays more efficient and productive through budget rationalization (Republic of Kenya, 1986). To achieve rationalization, the following measures were taken: projects with potentially high productivity were identified and their completion was

advanced with an infusion of funds; projects with low potential benefits were identified, postponed or cancelled to free up funds for projects with higher returns; resources were shifted toward operation and maintenance expenditure of existing public facilities and away from investments in new projects; and new development projects were to be funded only if they were productive investments with very high priority (Republic of Kenya, 1986).

The general approach then was that available resources for development budget were concentrated on few projects to shorten the implementation period. At the same time, recurrent allocations were diverted to improve the utilization of existing capacity in order to raise productivity of public investments. The goal was to ensure that all government investments became productive as soon as possible through budget rationalization (Republic of Kenya, 1986).In order to reduce the rate of growth of expenditure on salaries and allowances, several measures were adopted in 1990, which included the freezing of recruitment (Republic of Kenya, 1994).There was re-allocation of budget resources towards the core functions of government. These included maintenance of law and order, the administration of justice, the provision of broad-based education and health services, the provision of economic infrastructure and the protection of the environment.

The budget rationalization measures aimed at maximizing the productivity of public expenditure. In particular, objective technical and economic criteria were to be applied to project selection, with priority given to projects in the areas of health, education, infrastructure and environment (Republic of Kenya, 1994). The objectives were: to sustain reduction in the level of government expenditure as a percentage of GDP; to change the composition of government expenditure to focus more on efficient public investment and operations and maintenance in the long-run; and to strengthen the budgeting process. This was to be achieved by rationalizing allocations to recurrent expenditure, especially on wages, interest payments and transfer, while allowing development expenditure to grow (Republic of Kenya, 2002).

There has been increased development expenditure, especially targeting government investment in core social expenditures in education and health. The expenditure strategy adopted in the Economic Recovery Strategy (ERS) document was to restructure overall expenditure by gradually reducing the level of recurrent expenditure. This was aimed at facilitating a rapid increase in development expenditure within a sustainable macroeconomic framework (Republic of Kenya, 2004).However even after the adoption of the strategy paper, Kenya's recurrent component has soared even higher as shown in figure below;(Lower line-Development Expenditure: Upper most line –Recurrent Expenditure).

Figure 2: Kenyan Recurrent Expenditure soaring higher, 2000-2014
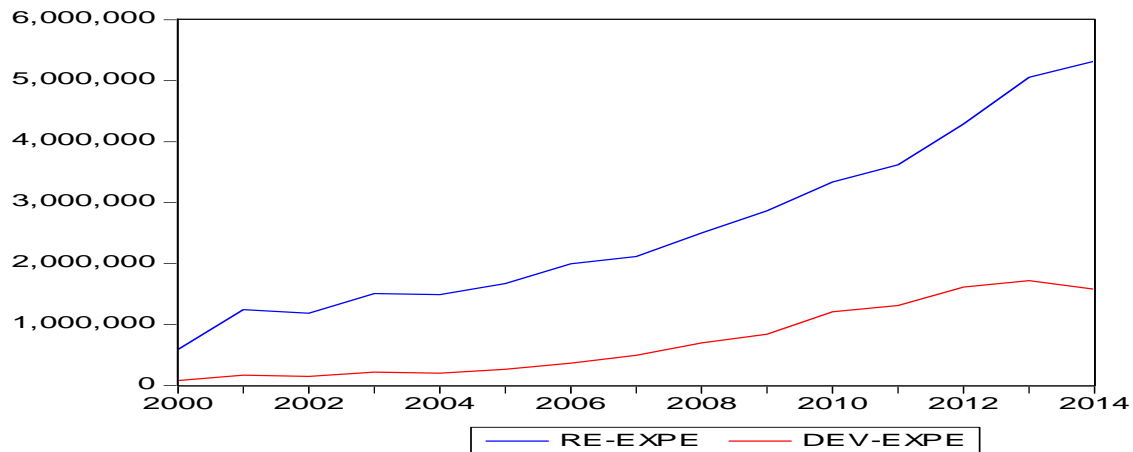
Source; Central Bank of Kenya data, 2015

Economic Growth in Kenya

Since independence, Kenya has had its own share of economic growth turbulence. There has been an upward and downward trajectory over different periods. In 1963-1968 periods, Kenya embraced a development strategy anchored on African Socialism philosophy. This strategy was based on four key pillars that included; Poverty eradication; Ignorance &disease; Employment creation to tame foreign dominance in the economy. The strategy paid back well as economy grew at annual rate of 6.6% from 1964 to 1974.At that time Kenya competed favorably with some of the newly industrialized countries of East Asia. However this upward trajectory did not continue for long as political instability, corruption and laxity performance challenges came calling, According to Republic of Kenya (1985), the Kenyan economic growth declined from 1976 to 1984 due to in appropriate agricultural policies, inadequate credit and tight government controls on imports and foreign exchange which made Kenya unattractive to investors. Moreover, government expenditure allocation to the ministries did not necessarily go to the intended intentions according to (Republic of Kenya Public expenditure review, 1997 and 2003). In 1991 to 1993 Kenya's economic performance hit rock bottom. Education attainment, health and poverty reduction status showed a declining trend thus necessitating adoption of sessional paper No.1 of 1986. The Economic Management for Renewed Growth (1986) forced the government to cut back on spending amid criticism from international community and Kenyan development partners over the structure of government spending in Kenya which was in favor of consumption and paying local and foreign debts as a tradeoff for capital expenditure outlay. Kenya's economic liberalization and reforms in the middle nineties picked up speed after a

tightening of aid by donors on governance grounds and an attempt to re-establish credibility following the costly Goldenberg scandal uncovered in 1992.

However, tangible results in the shape of favorable government debt dynamics and a pickup in growth took a decade to materialize. The report argues that the peaceful presidential election and transfer of power in December 2002 was central to the economic upswing after 2002. The subsequent decline in political risk was singled out by the private sector as an important development tool. As a result Kenya's economy grew by an average of 5.4% from 2003 to 2007.In 2008, the economy decline by 1.8 per cent due to political instability. The government in 2009/2010 budget came up with a five year medium term plan that increased public expenditures on infrastructural development. This has resulted to a steady and consistent average economic growth of 5.6% from 2009 to 2014 as shown below;

Figure 3: Percentage of GDP growth in Kenya overtime.
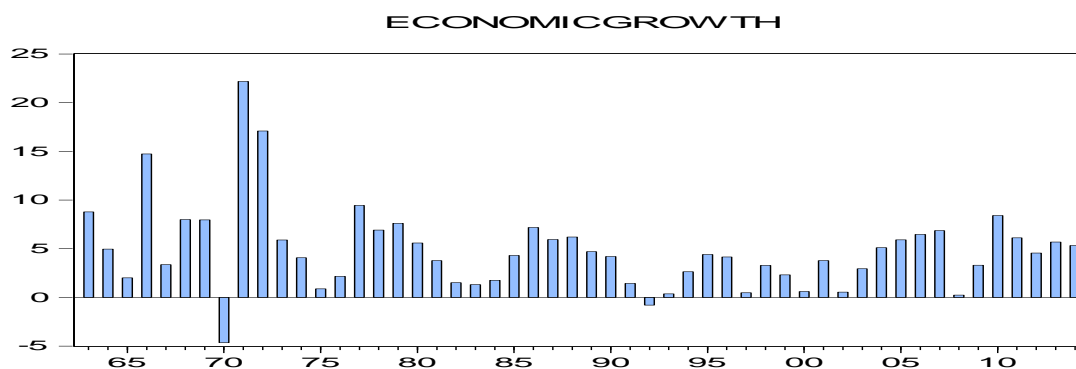
Source: World Bank Database, 2014.

Statement of the Problem

There has been a public debate on the government expenditure in Kenya focusing on whether or not government spending supports or does not support economic growth. The link between government expenditure components and economic growth is therefore a critical subject of analysis as the two are interrelated (Stiglitz, 1989).The government's ability to account for every revenue shilling has come under a thorough focus in the recent past. In Kenya, there has been a national conflict and outcry touching on specific issues which include; Labour compensation rates of workers in the education, health sectors and government expenditure on parliament among other in constitutional offices (KNBS, 2015).According to Chude&Chude (2013), IMF (1991) and Modebe (2012) governments should have a higher expenditure in development rather than in recurrent expenditures.

However, this rarely happens because in developing and middle developed countries governments grapple with many challenges (huge wage bill, unemployment, huge external borrowing for infrastructural development, corruption and political instabilities). According to Lotto (2011) and Devarajan &Vinay (1993) some aspects of recurrent sectoral expenditure have a positive effect and negative effects on economic growth in Nigeria. There are various studies that have been done in Kenya about the impact of government expenditure on economic growth, Muthui et al (2013); Simiyu (2015); among others. However, these studies have been sectoral based cutting across development and recurrent expenditures. This study therefore seeks to fill the gap by establishing the effects of recurrent expenditure on economic growth in Kenya.

Objectives of the Study

The general objective was to determine the effect of recurrent public expenditure components on economic growth in Kenya.

The specific objective is to;

i. Determine the effect of government recurrent expenditure on social services on economic growth.

ii. Find out the relationship between government general public administration and economic growth.

iii. Investigate the impact of government expenditure on debt interest payments on economic growth.

Significance of the study

This study will help policymakers in Kenya and elsewhere in coming up with prudent measures by allocating a huge chunk of recurrent expenditures to recurrent components that drive economic growth. It will also be useful for other developing countries especially in Sub-Saharan Africa which share similar characteristics with Kenya.

Scope of Study

The study covered Kenyan government recurrent expenditures on the above outlined components from 1980-2014. This is because there were huge structural adjustments in the 1980s, 1990s and after 2011 due to the promulgation of the new constitution.

Limitations of Study

The study specifically focused on the government expenditure going to various recurrent components of the economy but does not intend to look into entire public expenditure components.

LITERATURE REVIEW

Theoretical Literature

The theories that explain government expenditure are outlined below;

Wagner Theory of Organic State

Among the pioneer literatures on public expenditure was one German economist called Wagner. The literature opines that growth of public spending was a natural consequence of economic growth. Specifically, Wagner law viewed public expenditure as a behavioral variable that positively responded to the dictates of a growing economy, Wagner (1977). The hypothesis tries to find either a positive relationship between government spending and income or a unidirectional causality running from government spending to economic growth. The Wagner law is admired because it in many ways attempts to explain public expenditure and economic growth. The law is faulted because of its inherent assumption of viewing the state as separate entity capable of making its decisions ignoring the constituent's populace who in actual fact can decide against the dictates of the Wagner Law.

Musgrave Rostow's Theory

This theory asserts that in early stages of economic growth, public expenditure in the economy should be encouraged, Musgrave (1959). The theory further states during the early stages of growth there exists market failures and hence there should be robust government involvement to deal with these market failures. This theory is faulted because it ignores the contribution to development by the private sector by assuming the government expenditure is the only driver of economic growth.

Keynesian Theory

The Keynesian model indicates that during recession a policy of budgetary expansion should be undertaken to increase the aggregate demand in the economy thus boosting the Gross Domestic Product (GDP). This is with a view that increases in government spending leads to increased employment in public sector and firms in the private sector. When employment rises; then income and profits of the firms increase, and this results in firms hiring more workers to

produce the goods and services needed by the government. In consonance to the above, the work of Barro has stipulated a new perspective in which the investigation of the impact of fiscal budgetary expansion through public expenditure can enhance output growth. The authors employed a Cobb Douglas model and found that government activity influences the direction of economic growth (Barro& Sula-i-Martin,1992).However; one of the greatest limitations of Keynesian theory is that it fails to adequately consider the problem of inflation which might be brought about by the increase in government spending.

The Peacock and Wiseman Theory

This theory was advanced by peacock and Wiseman in a study of public expenditure in the UK for the period 1890 – 1955. It's based on premise that, the populace is naturally tax averse while the government on the other hand has an inherent appetite for expenditure. During times of shocks like calamities and war, the government would expeditiously increase the public expenditure, this necessitates moving taxes upwards, the researchers argued that the populace (tax payers) would allow and condone such an increase in tax. This scenario is referred to as displacement effect, though it's meant to be a short term phenomenon it normally assume a long term trend (Wiseman and Peacock, 1961).This can attempt to explain how government expenditure in Kenya has taken unrelenting upward trajectory. Every time Kenya has experienced shocks like, 1984 famine, resettlement of internally displaced persons and upsizing of the government structure to accommodate the many ministries intended to serve the citizens, the taxes intensify and scope matched in tandem with the public expenditure. One of the shortcomings of this theory is that it sidelines the fact that government can finance an upward displacement in public expenditure using other sources of finance such as donor funds, external borrowing or even sale of government fixed asset and this needless to say may not affect taxes in an upward trend.

Ernst Engel's Theory of Public Expenditure

Ernst Engel was also a German economist writing almost the same time as Adolph Wagner in the 19th century. Engel pointed out over a century ago that the composition of the consumer budget changes as family income increases, Zimmerman (1932). A smaller share comes to be spent on certain goods such as work clothing and a larger share on others, such as for coats, expensive jewelries etc. As average income increase, smaller charges in the consumption pattern for the economy may occur. At the earlier stages of national development, there is need for overhead capital such as roads, harbors, power installations, pipe-borne water etc. But as the economy developed, one would expect the public share in capital formation to decline over

time. Individual expenditure pattern is thus compared to national expenditure and Engel finding is referred to as the declining portion of outlays on foods.

Conceptual Framework

According to (Mugenda, 2008), conceptual framework is a concise description of the phenomenon under study accompanied by a graphic or visual depiction of the major variables of the study.

Figure 4: Conceptual Framework

| Government Expenditure on Social Services |
| Government Expenditure on general Administration | → | Real Gross Domestic Product |
| Government Expenditure on Debt Repayment |
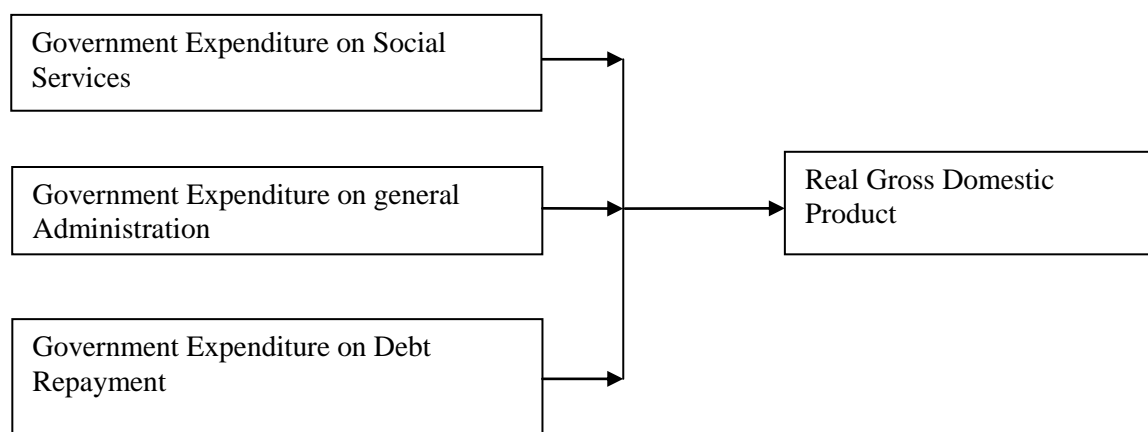
Empirical Review

Devarajan *et al.* (1993) used functional categories of public expenditure in their economic growth regressions. The study found that public expenditure had a negative impact on developing countries but had a positive impact on developed countries. The study had categorized expenditure into productive and non-productive categories by taking into account the level of resources invested and output produced by different programs. For instance, the study reported that government expenditure on health and transport and communications to be growth promoting but found no positive impact of education and military spending on economic growth.

Elbadawi *et al.* (1996) using cross-section regression for 99 developing countries spanning SSA, Latin America, Asia and Middle East confirmed a debt overhang effect on economic growth. They identified three direct channels in which indebtedness in SSA works against growth: current debt inflows as a ratio of GDP (which should stimulate growth), past debt accumulation (capturing debt overhang) and debt service ratio. The fourth indirect channel works through the impacts of the above channels on public sector expenditures. They found that debt accumulation deters growth while debt stock spurs growth. Using data for Cameroon,

Mbanga and Sikod (2001) found that there exist a debt overhang and crowding-out effects on private and public investments, respectively. Other studies that have found a negative effect of external debt on growth include Degefe (1992). Some studies simply use simulation analysis to show the impact of the debt burden indicators on economic growth under different scenarios (Ajayi (1991); Osei(1995).

Kuştepeli, (2005) carried out a study to determine how government size affected the economic growth by focusing on OECD countries in the period 1970 – 1999. The study using panel data alluded to the fact that the government size had a negative and statistically significant impact on economic growth. The only countries which did not fall under the above conclusion were United States of America, Sweden and Norway with their coefficients turning out to be statistically insignificant.

M'Amanja and Morrissey (2005) in their paper entitled "Fiscal Policy and Economic Growth in Kenya" found that unproductive expenditure and non-distortionary tax revenue to be neutral to growth as predicted by economic theory and productive expenditure has strong adverse effect on growth whilst there was no evidence of distortionary effects on growth of distortionary taxes.

Jerono (2009) conducted a study on the impact of government spending on economic growth in Kenya and found that though expenditure on education had a positive relationship with economic growth; it does not spur any significant change to growth. Given the reason that the expansion of education is higher than that of job growth in Kenya and there are relatively few job opportunities outside government for secondary and university graduates hence the education system has been blamed for producing surplus graduates, and long waits for government jobs. The study also asserted that a mere expenditure growth does not necessarily spur growth; growth on the GDP was dependent on other factor too such as political will efficiency and also prioritization on the key components of the economy. Maingi (2011) while conducting study on the impact of government expenditure on economic growth in Kenya reported that improved government expenditure on areas such as physical infrastructure development and in education enhance economic growth while areas such as foreign debts servicing, government consumption and expenditure on public order and security, salaries and allowances were growth retarding.

Loto (2011) investigated the growth effect of government expenditure on economic growth in Nigeria over the period of 1980 and 2008, with a particular focus on sectoral expenditures. His study was based on the use of five key sectors; security, health, education, transportation and communication and agriculture. His results indicated that in the short-run, expenditure on agriculture is negatively related to economic growth. The impact of the

expenditure on the educational sector was also observed to be negative and not significant. The impact of expenditure on health was found to be positively related to economic growth. Finally, the results showed that while the expenditure on national security transportation and communication was positively related to economic growth, their impact was not statistically significant.

Saheed (2012) examined the impact of government capital expenditure on exchange rate in Nigeria, using disaggregated approach. The findings of the study indicated that the government's capital expenditure, especially government spending on social and community services has a statistically significant impact on exchange rate in Nigeria, while capital expenditures on administration, economic services and transfer are not statistically significant in respect to their impact on exchange rate. In studying the effect of the composition of public expenditure on growth in Nigeria using the vector error correction approach (VEC), Onotaniyohwo et al (2012) found that the expenditure on transfers had a significant but negative impact on growth while the expenditure on economic and social-community services had a significant and positive impact on growth.

Muthui et al (2013), while investigating the impact of government expenditure components: (education, infrastructure, health, defense and public order and security)on economic growth in Kenya found out that government expenditure on education is positively related to economic growth it does and it does not spur any significant change to growth. The study also found out increased expenditure on improving health might be justified purely on the grounds of its impact on labor productivity. This supports the case for investments in health as a form of human capital. To reduce the huge budget outlay for importing medicine and drugs, this study recommended for government to support research and development in this sector locally.

Critique of the Existing Literature Relevant to the Study

From the literature reviewed so far, it may be observed that while a lot of research has been carried out on the impact of government expenditure on economic growth in Kenya, no attempt has so far been made to study the growth impact of the recurrent public expenditure on the economic growth. This is supported by the fact that most governments believe that recurrent expenditures are bad for the economy. The policy makers have been in verge of taming recurrent public expenditures at whatever cost.

However, in this study an attempt is made to establish the effect of recurrent public expenditure components on economic growth in Kenya.

Summary of Literature

The first part of the literature review highlighted basic theories that have been used to support the effects of government expenditure on economic growth. There are five theories that have been discussed; But three form a key interest for our study which include: the Keynesian theory, Wagner's theory of increasing state activities, and Musgrave theory of public expenditure growth. From these theories, we realize there are different views of the effect of government spending on economic growth. According to Keynesian view, government could reverse economic downturns by borrowing money from the private sector and then returning the money to the private sector through various spending programs. High levels of government consumption are likely to increase employment, profitability and investment via multiplier effects on aggregate demand. Thus, government expenditure, even of a recurrent nature, can contribute positively to economic growth. Wagner's theory on the other hand emphasizes that increase in public demand leads to proportional increase in national income.

Musgrave theory on the other hand observes that at the high levels of per capita income, typical of developed economics, the rate of public sector growth tends to fall as the more basic wants are being satisfied. From the empirical literature review, various findings have also contradicted each other. Some of them relate economic growth increase to government expenditure increase while others attribute negative economic growth to government expenditure as well. It is worth noting that the differences in the outcome of these findings could be as a result of the different exploratory variables used in different combinations and different contexts. But what remains for sure is that government expenditure has a great impact on the economic growth of a country.

Research Gap

As revealed from the literature reviewed so far, different exploratory variables lead to different outcomes in the study of economic growth and public expenditure. Although these studies were done in different African contexts, none of those reviewed was based on Kenyan context as similar studies done in Kenya do not disaggregate recurrent public expenditure into specific components. These studies hardly give policy recommendations and implications of recurrent public expenditure on economic growth. This study seeks to fill this gap by providing necessary literature, disaggregating recurrent public expenditure into major specific components and finding out how each component impacts economic growth. This study becomes even more useful because the researcher provided policy recommendations at the end of the study that can be adopted by the current government.

METHODOLOGY

Research Design

Descriptive studies are usually the best methods for collecting information that will demonstrate relationships and describe the world as it exists. These types of studies are often done before an experiment to know what specific things to manipulate and include in an experiment. Elahi & Dehdashti, (2011) suggest that descriptive studies can answer questions such as "what is" or "what was." Experiments can typically answer "why" or "how." The focus of this study was to establish the relationships between variables of interest and the causal effects. It is important to note that just because variables are related, does not necessarily mean that one directly causes the other. This study was descriptive in nature and involved quantitative analysis of data.

Target Population

The study focused on time series data for three economic variables for the period from 1980 to 2014. This study concentrated on the following variables; dependent variable, economic growth (measured by the Real GDP) and independent variables namely government expenditure on public administration, government expenditure on debt, and government expenditure on social services. The choice is also for the avoidance of structural breaks problems. The data will investigate the whole study area and for that reason there will be no sampling undertaken.

Data Collection Instruments

According to (Ngechu, 2004), there are many methods of data collection. The choice of a tool and instrument depends mainly on the attributes of the subjects, research topic, problem question, objectives, design, expected data and results. This is because each tool and instrument collects specific data. This study used secondary data which was collected from the Central Bank of Kenya website, Kenya National Bureau of Statistics website, and the Treasury publications.

Variables Description and Justification

Government Expenditure on Social services

Consists of all recurrent health and education expenditure .This is total expenditure on education made by the central government for pre-primary through tertiary education. It also means expenditure made by the central government for hospitals, clinics, and public health affairs and services for medical, dental and paramedical practitioners; for medication, medical equipment and appliances; for applied research and experimental development.

Government Expenditure on General Public Administration

This is the government expenditure on the national assembly, senate, judiciary and constitutional commissions. These are recurring expenditures on salaries and sitting allowances of members of parliament, senate, judiciary and constitutional commissions. The persistent public outcry in recent times over the perceived unnecessarily large expenditure on the Kenyan public administration, and the question of the extent of their contribution to the overall growth of the nation is worrisome. The importance of expenditure on the constitutional pillars is derived from the role of the general administration in the creation of an enabling environment for the growth of economic activities through the promulgation, review and amendment of laws, interpreting the laws, evaluation and approval of national budgets, as well as their oversight functions which has to do with the power of the national assembly to review, monitor and supervise agencies, programmes, activities and policy implementation of the executive arm of government, Ndoma.,E.(2012).

Government Expenditure on Debt Repayments

This is the government expenditure on both external and internal debt repayments. External debt constitutes all money borrowed outside the country while the internal debt includes all money that is borrowed within the country. Kenya's external debt indicators-debt-to-GDP ratio and debt-to exports ratio—have risen from an average of 38.5 per cent and 121.1 per cent for the 1970-80 period to 89.2 per cent and 268.2 per cent for 1991-99 period, respectively. Meanwhile, there have been significant net outflows since 1991 to service the debt obligations. There are various questions that form an area of interest in this study; Is Kenya paying out more funds than it receives, thereby reducing domestic resources available for development? Are the amounts of money borrowed put into growth promoting or retarding activities? Although domestic debt constitutes less than a third of the total formal debt, it is almost ten times as expensive as external debt (GoK2014).

Data Analysis and Presentation

Before subjecting the data to a regression analysis, a descriptive statistics test has to be conducted to provide a general view of the distribution and behavior of the variables in use. This entails showing trends of the variables in form of tables, graphs, and charts. Residual test for normality of the data series will be conducted and the Jacque Bera coefficient and its p-value will be observed for significance.

From the above analysis and for obvious statistical reasons, the logs (L) of all the variables will be calculated. The regression equation will be as follows;

LRGDP $= \beta_0 + \beta_1 LGES + \beta_2 LGEA + \beta_3 LGED + \varepsilon_t$ ……………………………………….. (1)

RGDP-Real gross domestic product

β_0 -constant term

GES- Government expenditure on social services

ε t-Error term

GEA- Government expenditure on general administration

GED- Government expenditure on debt

Stationarity Test/Stability test

This is done to ensure that variables are stationary and that shocks are only temporary and will dissipate and revert to their long-run mean (Maysami, Howe, & Hamzah, 2004). In time series analysis, the Ordinary Least Squares regression results might provide a spurious regression if the data series are non-stationary. Thus, the data series must obey the time series properties i.e. the time series data should be stationary, meaning that, the mean and variance should be constant over time and the value of covariance between two time periods depends only on the distance between the two time period and not the actual time at which the covariance is computed.

For solution to the research question to be feasible, a stability analysis was carried out (Dimitrova, 2005). The augmented Dickey Fuller test was used to establish whether the data was stationary or not and also to determine the order of integration of the variables. It involved the following equations.

$\Delta GDP = a_0 + \beta t + \theta yt - 1 + \sum_{t=1}^{m}(\rho \Delta GDPt - i + et)$(For levels) …………............. (2)

$\Delta\Delta GDP = a_0 + \beta t + \theta \Delta yt - 1 + \sum_{t=1}^{m}(\rho \Delta\Delta GDPt - i + et)$(For first differences).......... (3)

There are cases where ADF doesn't have a drift and a trend but the example has both a drift (intercept) and a trend. Where a_0 is a drift, m is the number of lags and e is the error term and t is trend.

The null hypothesis will be HO: $(a_0, \beta, \theta) = (a_0, 0, 1)$ (No-Stationarity)

The alternative hypothesis H1: $(a_0, \beta, \theta) \neq (a_0, 0, 1)$ (Stationarity)

If the test reveals that null hypothesis should be rejected than the variable will be said to be stationary.

Cointegration Test

The study used bound testing technique which is based on three validations to test for cointegration. First, Pesaran *et al.* (2001) advocated the use of the ARDL model for the estimation of level relationships because the model suggests that once the order of the ARDL has been recognised, the relationship can be estimated by OLS. Second, the bounds test allows

a mixture of I(1) and I(0) variables as regressors, that is, the order of integration of appropriate variables may not necessarily be the same. Therefore, the ARDL technique has the advantage of not requiring a specific identification of the order of the underlying data. Third, this technique is suitable for small or finite sample size (Pesaran *et al.*, 2001).

Following Pesaran *et al.* (2001), we assemble the vector auto regression (VAR) of order *p,* denoted VAR (*p*), for the following growth function:

$$Z_t = \mu + \sum_{i=1}^{p} \beta_i z_{t-i} + \varepsilon_t$$

.... (4)

Where z^t is the vector of both x^t and y^t, where y^t is the dependent variable defined as economic growth (RGDP), x_t is the vector matrix which represents a set of explanatory variables. According to Pesaran *et al.* (2001), y_t must be I(1) variable, but the regressor x_t can be either I(0) or I(1). We further developed a vector autoregression model (VAR) as follows:

$$\Delta z_t = \mu + \alpha t + \lambda z_{t-1} + \sum_{i=1}^{p-i} \gamma_t \Delta y_{t-i} + \sum_{i=1}^{p-1} \gamma_t \Delta x_{t-i} + \varepsilon_t$$

....(5)

where Δ is the first-difference operator. The long-run multiplier matrix λ as:

$$\lambda = \begin{bmatrix} \lambda_{YY} \lambda_{YX} \\ \lambda_{XY} \lambda_{XX} \end{bmatrix}$$

The diagonal elements of the matrix are unrestricted, so the selected series can be either I (0) or I(1). If $\lambda_{YY} = 0$, then *Y* is I(1). In contrast, if $\lambda_{YY} < 0$, then *Y* is I (0).

The VECM procedures described above are imperative in the testing of at most one cointegrating vector between dependent variable y_t and a set of regressors x_t. To derive model, we followed the postulations made by Pesaran *et al.* (2001) in case III, that is, unrestricted intercepts and no trends. After imposing the restrictions $\lambda_{YY} = 0, \mu \neq 0$ and

$$\Delta(LRGDP)_t = \beta_0 + \beta_1(LRGDP)_{t-1} + \beta_2(LGES)_{t-1} + \beta_3(LGED)_{t-1} + \beta_3(LGEA)_{t-1}$$
$$+ \sum_{i=1}^{p} \beta_4 \Delta(LRGDP)_{t-i} + \sum_{i=0}^{q} \beta_5 \Delta(LGES)_{t-i} + \sum_{i=0}^{r} \beta_7(LGED)_{t-i} + \sum_{i=0}^{s} \beta_7(LGEA)_{t-i} + \mu_t \ldots\ldots\ldots(6)$$

Where u^t is a white-noise disturbance term;

RGDP   = Logarithm of Real Gross Domestic Product

LGES   = Logarithm of government expenditure on social services

LGED   = Logarithm of government expenditure on debt

LGEA   =Logarithm of government expenditure on general public administration

Equation (6) also can be viewed as an ARDL of order (p, q, r, s). Equation 6 indicates that economic growth tends to be influenced and explained by its past values. The structural lags are established by using minimum Akaike's information criteria (AIC).The short-run effects are captured by the coefficients of the first-differenced variables in equation 6.

Granger Casuality Test

The Granger Casuality test determines the casual relationship between GDP growth and public expenditure components. The Granger method sought to explain how much of a variable X (public expenditure components) can be explained by its own past values and whether adding lagged values of another variable Y (GDP growth) can explain better. It involves estimation of the following equations:

$$Y_t = \alpha_0 + \sum_{i=1}^{n} \alpha_1 Y_{t-1} + \sum_{j=1}^{n} \beta_j X_{t-1} + \varepsilon_1 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..(7)$$

$$X_t = \alpha_0 + \sum_{i=1}^{m} \alpha \ni_1 Y_{t-1} + \sum_{j=1}^{m} \delta_j X_{t-1} + \varepsilon_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..(8)$$

In the model, "t" denotes time periods and ε is a white noise error term. The constant parameter $\alpha 0$ denotes constant growth rate of Y in equation (7) and for X in equation (8). The trend is interpreted as general movements of cointegration between X and Y that follows the unit root process.

Model Specification

This study aimed at establishing the dynamic properties of the relationship between government spending and RGDP in Kenya over the years (1980-2014). The functional form, on which our model was based, employed a multiple regression equation in the analysis of this work. In an attempt to capture our essence of this study, and based on previous studies the Real Gross Domestic Product (RGDP),Government Expenditure on social services(GES); Government Expenditure on general public administration (GEA) and Government expenditure on debt (GED) were used to formulate our model.

The following model which represents linearity is formulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_1 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. (9)$$

Where: Y: represents the economic growth measured by per real gross domestic product.

X1: Government Expenditure on Social services.

X2: Government Expenditure on general public administration.

X3: Government Expenditure on Debt.

β_1, β_2 and β_3: represents the coefficients values of the three independent variables, respectively.

β_0: represents the constant term.

ε_1: Represents the error term

RESEARCH FINDINGS & DISCUSSION

For data analysis, stationarity of variables is of great importance because we are using a time series data. Unit root tests were done using the Augmented Dickey Fuller (ADF) tests to check for stationarity of variables. Moreover, the ARDL model or the bound test approach to cointegration test was used to determine the appropriate time series model to be used. Further, the results of VAR and granger causality were specified and interpreted accordingly.

Unit Root Tests

If a time series data is non-stationary, the regression analysis done for the data will produce spurious results. Therefore, unit root tests were conducted on the data (government expenditure on social services-LGES, government expenditure on debt -LGED, government expenditure general administration –LGEA and the real gross domestic product –LRGDP)and results showed that LGED was stationary at level while LGES, LGEA and LRGDP variables were non stationary at level (see table 1 below). Therefore, the researcher went ahead to carry out the first difference on non-stationary variables which tested for stationarity, after the 1st difference (see table 2 below). These showed that the variables were integrated of order (0) and order (1) thus the Autoregressive Distributed Lags model Test would be adopted to test for cointegration, instead of Johansen co integration test.

Table 1: Unit Root Test Results

	Variables at Level			
Variable	With Trend & Intercept	ADF	Critical values	Probability
LGES	With Intercept & No Trend	-0.988	1% - 3.639 5% - 2.951 10% -2.614	0.746
LGED	With Intercept & No Trend	-5.607	1% - 3.639 5% - 2.951 10% -2.614	0.000

			1% - 3.639	
			5% - 2.951	
			10% -2.614	
LGEA	With Intercept & No Trend	0.109		0.746
			1% - 3.639	
			5% - 2.951	
			10% -2.614	
LRGDP	With Intercept & No Trend	-0.499		0.879

Table 2: Unit Root Test Results

Variables at First Difference				
Variable	With Trend & Intercept	ADF	Critical values	Probability
			1% -3.646	
			5% -2.954	
			10% -2.616	
		-6.649		
LGES	With Intercept & No Trend			0.0002
			1% -3.646	
			5% -2.954	
			10% -2.616	
LGEA	With Intercept & No Trend	-7.521		0.0001
			1% -4.262	
			5% -3.552	
		-4.439	10% -3.209	0.0016
LRGDP	With Intercept & No Trend			

Granger Causality Test

The data was subjected to granger causality test to confirm whether there existed a unidirectional or bi-directional relationship. The decision criteria was based on the rule that we accept null hypothesis when p value is greater than 5% and reject it when it is below 5%.Below are the results for the tests;

Table 3. Granger Causality Results

Granger Causality Tests

Sample: 1980 2014

Null Hypothesis:	Obs	F-Statistic	Prob.
LGES does not Granger Cause LRGDP	33	1.56366	0.2271
LRGDP does not Granger Cause LGES		2.45949	0.1037
LGED does not Granger Cause LRGDP	33	4.08147	0.0278
LRGDP does not Granger Cause LGED		3.59270	0.0408
LGEA does not Granger Cause LRGDP	33	3.21936	0.0552
LRGDP does not Granger Cause LGEA		5.66068	0.0086
LGED does not Granger Cause LGES	33	3.09520	0.0610
LGES does not Granger Cause LGED		1.01865	0.3741
LGEA does not Granger Cause LGES	33	0.04330	0.9577
LGES does not Granger Cause LGEA		2.02043	0.1515

The granger causality tests indicates that there were various causal relationships running from : real gross domestic product to government expenditure on debt; government expenditure on debt to real gross domestic product; real gross domestic product to government expenditure on general administration; government expenditure on debt to government expenditure on general administration. Moreover, this necessitated for a need for further tests to determine the extent and nature of these relationships.

Lag Selection Criteria

According to Enders, 1995, it is important in time series to determine the lag length to ensure that the model is not mispecified. There are various methods that are used in determining the optimal length which include: Schwarz Bayesian Information Criterion (SBIC), Hannan-Quinn Information Criterion (HQIC)Likelihood Ratio (LR), Final Prediction Error (FPE) and Akaike Information Criterion (AIC). There is no clear rule on which method to use for optimal lag length selection. However, the decision rule is to choose the model with lowest value. In our study we used AIC because the lower the AIC Value the better the model and the corresponding lag becomes the optimal lag.

Autoregressive Distributed Lags Model Test

This model is also known as bound test. The technique is based on three validations. First, Pesaran *et al*. (2001) advocated the use of the ARDL model for the estimation of level relationships because the model suggests that once the order of the ARDL has been recognised, the relationship can be estimated by OLS. Second, the bounds test allows a mixture of I(1) and I(0) variables as regressors, that is, the order of integration of appropriate variables may not necessarily be the same. Therefore, the ARDL technique has the advantage of not requiring a specific identification of the order of the underlying data. Third, this technique is suitable for small or finite sample size (Pesaran*et al*., 2001).See ARDL results of our model in Table 4 below;

Table 4: Results for ARDL Model

Dependent Variable: D(LRGDP)

Sample (adjusted): 1986 2014

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.419885	0.717583	-0.585138	0.5693
LRGDP(-1)	-0.451202	0.101457	-4.447217	0.0008
LGES(-1)	0.478958	0.104547	4.581250	0.0006
LGED(-1)	0.088557	0.065826	1.345321	0.2034
LGEA(-1)	-0.043549	0.068953	-0.631578	0.5395
D(LRGDP(-1))	0.167954	0.174202	0.964129	0.3540
D(LGES(-1))	-0.282060	0.117148	-2.407723	0.0330
D(LGED(-1))	0.146595	0.057764	2.537820	0.0260
D(LGEA(-1))	0.033286	0.084160	0.395504	0.6994
D(LGED(-2))	0.153655	0.054779	2.804998	0.0159
D(LGEA(-2))	-0.143032	0.114393	-1.250352	0.2350
D(LGES(-2))	-0.275189	0.115059	-2.391718	0.0340
D(LGED(-3))	0.149659	0.049411	3.028863	0.0105
D(LGEA(-3))	-0.189165	0.099938	-1.892814	0.0827
D(LGED(-4))	0.144729	0.039721	3.643607	0.0034
D(LGES(-4))	0.144478	0.101895	1.417907	0.1817
D(LGEA(-5))	0.185424	0.087552	2.117870	0.0557
R-squared	0.856085	Mean dependent var		0.137001
Adjusted R-squared	0.664198	S.D. dependent var		0.070257
S.E. of regression	0.040713	Akaike info criterion		-3.274514
Sum squared resid	0.019891	Schwarz criterion		-2.472996
Log likelihood	64.48046	Hannan-Quinn criter.		-3.023489
F-statistic	4.461397	Durbin-Watson stat		2.110786
Prob (F-statistic)	0.006121			

Long-run Equation; LRGDP= 0.931 + 1.061*LGES + 0.196*LGED -0.097*LGEA   (10)

Wald Test

The researcher conducted Wald tests to establish the relationship between the variables. The bound test approach gave an F-statistic of 6.59 which fell above the lower and upper bound values of the Pesaran table at all levels of significance. This showed there was a long-term relationship among the variables (See table 5&6 below);

Table 5: Wald Test Results

Test Statistic	Value	df	Probability
F-statistic	6.593989	(4, 12)	0.0048
Chi-square	26.37595	4	0. 000

Table 6: Bound Test Results

Critical Value	1%	5%	10%
Lower Bound Value	5.29	3.79	3.18
Upper Bound Value	6.31	4.86	4.12

The long-run equation shows that government expenditure on social services (LGES) and government expenditure on debt (LGED) are positively related while government expenditure general administration (LGEA) is negatively related to economic growth in Kenya. However, government expenditure on debt and government expenditure general administration are statistically insignificant while government expenditure on social services is statistically significant in driving economic growth in Kenya. Further, a unit increase in government expenditure in social services will result to 1.061 unit increase in the economic growth, while a unit increase in government expenditure on debt will increase the economic growth by 0.196 units. A unit increase in government expenditure in general administration will lead to 0.097 unit decrease in economic growth in Kenya.

Stability Test

Recursive test was used to examine whether the parameters of the model are stable across various samples in the data. The CUSUM test was then carried out on the squares of the residuals. This test measures the parameter instability of the estimated model. If the line representing the squares of the model's residuals fall within range (the upper and lower bound lines) then the residuals variance is stable, otherwise it is not. Figure 5 shows that the cumulative sum of squares is within the range. Thus it passes the stability test.

Figure 5: CUSUM Test
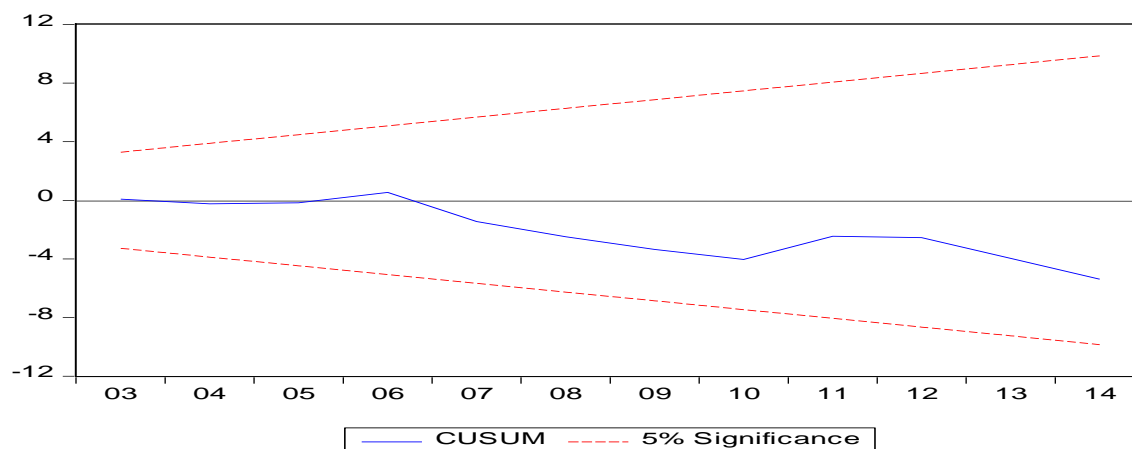
Normality Tests

The Jarque-Bera statistic was used to test for normality. The statistic gave a probability of more than 0.05 percent for all the regression equations. Therefore, the null hypothesis, that data is normally distributed, was accepted.

Figure 6: Normality Test

Series: Residuals	
Sample: 1986 2014	
Observations 29	
Mean	1.75e-15
Median	-0.002170
Skewness	0.861915
Jarque-Bera	3.921339
Probability	0.140764

Heteroscedasticity Test

Heteroscedasticity tests are done on the residuals using Breusch-Pagan-Godfrey specification to determine homoscedasticity. The Breusch-Pagan-Godfrey regresses squared residuals on the original regressors by default.

The model R-squared is more than 5% and hence we conclude that the residuals are homoscedastic. This is a good result for the model.

Table 7: Heteroscedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.899266	Prob. F(16,12)	0.5869
Obs*R-squared	15.81231	Prob. Chi-Square(16)	0.4661
Scaled explained SS	3.415621	Prob. Chi-Square(16)	0.9996

Serial Correlation Test

The Breusch –Godfrey serial correlation LM test was done on the system. The R – squared was found to be more than 5% and therefore there was no serial correlation as shown in the table below;

Table 8: Serial Correlation results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.165880	Prob. F(2,14)	0.8488
Obs*R-squared	0.671311	Prob. Chi-Square (2)	0.7149

Error Correction Term / Short run relationship

In table 9 above, estimated model passes all diagonistic tests such as normality, serial correlation and heteroscedasticity (see in appendices 1).The speed of adjustment towards equillibrium is 45 per cent implying that there will be a sluggish adjustment that will take 2 years 2 months towards equillibrium incase of short-run shocks. The error correction term is highly significant thus supportive of the specified long-run relationship. The adjusted R-squared is 73 per cent suggesting the error correction model fits the data reasonably well.

Table 9: Results for ECM

Dependent Variable: D(LRGDP)

Sample (Adjusted): 1986 2014

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.827947	0.158016	-5.239625	0.0001
ECT(-1)	-0.452264	0.078782	-5.740680	0.0000
D(LRGDP(-1))	0.168680	0.139744	1.207068	0.2461
D(LGES(-1))	-0.284426	0.098010	-2.902023	0.0109
D(LGED(-1))	0.146198	0.032294	4.527165	0.0004
D(LGEA(-1))	0.034446	0.049367	0.697766	0.4960
D(LGED(-2))	0.152867	0.044954	3.400494	0.0040
D(LGEA(-2))	-0.141702	0.057374	-2.469798	0.0260
D(LGES(-2))	-0.276104	0.101563	-2.718539	0.0159
D(LGED(-3))	0.148646	0.041165	3.610961	0.0026
D(LGEA(-3))	-0.187612	0.065864	-2.848472	0.0122
D(LGED(-4))	0.143918	0.033040	4.355936	0.0006
D(LGES(-4))	0.142941	0.081796	1.747534	0.1010
D(LGEA(-5))	0.183895	0.068031	2.703092	0.0164

R-squared	0.856041	Mean dependent var		0.137001
Adjusted R-squared	0.731277	S.D. dependent var		0.070257
S.E. of regression	0.036420	Akaike info criterion		-3.481108
Sum squared resid	0.019897	Schwarz criterion		-2.821034
Log likelihood	64.47606	Hannan-Quinn criter.		-3.274381
F-statistic	6.861258	Durbin-Watson stat		2.115050

DISCUSSION OF RESULTS

Maingi (2011) study on the impact of government expenditure on economic growth showed that government expenditure on foreign debts servicing, public administration were growth retarding in Kenya. Jerono (2009) while conducting a similar study found that though government expenditure on education had a positive impact on economic growth it was statistically insignificant in driving economic growth in Kenya. Saheed (2012) while conducting a similar study in Nigeria found out that government expenditure on social services has a positive effect on economic growth. These empirical studies validate my findings that show that government recurrent expenditure on social services is positively related and statistically significant in driving economic growth in Kenya.

However, recent studies by Muthui et al (2013) while conducting a similar study in Kenya found out that government expenditure on health and education is positively related to growth but statistically insignificant in driving economic growth. My study brings interesting finding to this debate because it actually conflicts Muthui et al (2013) findings. Would it be government expenditure on health and education is not properly absorbed when it is development oriented? Data shows that on average government allocation to the social sectors (education and health) as a percentage of gross domestic product ranged from 5.3 percent in 1980 to 7.8 percent in 2014.This is a 2.5 percent growth in the expenditures over a span of 34 years, against an increasing population 16.27 million,1980 and 45 million, 2014. The data also shows that government expenditure on debt and government expenditure on administration grew over the same time period by an average of 3.5 per cent and 2 per cent respectively. This is a slow growth and therefore shows policy makers are cognizant of economic policy implications of the two variables.

The study finding on this paper urges policy makers to ensure more funds are concurrently allocated to recurrent components of health and education sectors to spur economic growth.

Moreover, this study indicates there is a unidirectional relationship between real gross domestic product and expenditure on debt. Government expenditure on debt is positively related to growth though statistically insignificant in Kenya. This can be explained by low productivity of government spending or low absorptive capacity of development expenditure and therefore full benefits have not yet been realized in the economy. There is also a bidirectional relationship that runs from government expenditure on debt to government expenditure on administration. This can be explained by the fact that Kenya is borrowing to finance development projects hence more resources will be needed for government project administration. However, the government should not increase its administration workforce budget through recruiting but they should retain and retrain their current staff.

CONCLUSION

The main objective of this study was to investigate the effect of recurrent public expenditure on economic growth in Kenya. To achieve the objective of this study, time series data for the period 1980 to 2014 was collected for the various macroeconomic variables. Unit root tests were run to test the stationarity level of the data which was found to be integrated of order zero, I(0)and order one, I(1). The data was also tested for cointegration using ARDL model and results revealed existence of long term relationship between economic growth and its determinants. According to the Keynesians school of thought, public spending is widely seen as having an

important role in supporting economic growth in a country. On the other hand, a lower level of spending implies that fewer revenues are needed to achieve balanced budgets, which means that lower taxes can be levied, hence contributing to reduction of growth and employment.

Using the collected data, the study showed that government recurrent expenditure on debt and social services had a positive effect on economic growth in Kenya while government recurrent expenditure on general public administration had a negative effect. Recurrent public expenditure on general administration and debt was however statistically insignificant in driving growth while government recurrent expenditure on social services was statistically highly significant.

In this study we were investigating the effect of recurrent public expenditure on economic growth on Kenyan economy using bounds test approach and causality analysis for annual time series data from 1980-2014.Cointegration test results support long-run relationship between the macroeconomic variables while granger causality results show that short-run relationships are evident. The empirical results are in line with the studies of Onotaniyohwo et al (2012) and Modebe (2012) et al that recurrent government expenditure components had positive and negative impacts on economic growth in Nigeria.

RECOMMENDATIONS

Several policy implications can be derived from understanding directions and magnitude of causality between government expenditure on debt and economic growth. The trends in government borrowing have tremendously increased in the recent years; however growth has maintained an average of 5.41 per cent for the last 10 years. The government should borrow and invest into public projects that are growth promoting in any part of the country without political coercions.

Possibly there could be lack of accountability of public expenditures by government officials especially in handling public borrowed funds and this could explain why recurrent expenditure components have always been seen to retard growth. Those who hold powerful positions should account for every shilling that is invested in any project. The expenditures must be sound and within limits. The government should also strengthen Ethics and Anti-corruption commissions to ensure that they have prosecution powers to prosecute any corrupt mal practices. This will help Kenya to realize all positive effects that come with public debt as a result of prudence in the management of borrowed funds.

The government through the Ministry of Finance should come up with frameworks to give a direction to the National and County Treasuries on recurrent and development expenditure limits. The commission should also have a framework that gives the counties a

direction on specific projects to undertake in a financial year. In this framework, project undertakings can be tilted or increased towards social sectors since they promote economic growth both in the short-run and long-run.

The study also recommends that allocations into general administration of the government should be reduced to support projects that are growth promoting. According to the Institute of Economic Affairs (IEA, 2014) Kenyan public officials are among the best paid in Africa. Government recurrent expenditure on administration is negatively related to growth thus the government should come up with strategies that increase administrative output to promote the national gross domestic product.

SUGGESTIONS FOR FURTHER RESEARCH

The study only considered the recurrent government expenditure components in various selected sectors (education, health, administration and public debt).However; other sectors, which include; agriculture, Security, environment and natural resources play a critical role in economic growth of the nation and therefore should also be examined to evaluate the current contributions and impacts they offer to growth.

Further, the researcher also recommends a study on the budgeting and actual expenditure allocations on operations and maintenance item in the budget and its impact on growth. This expenditure item is set to increase tremendously in the next decade due to many infrastructural projects being undertaken by the government in the country. This will ensure that they are structured to promote growth in the economy.

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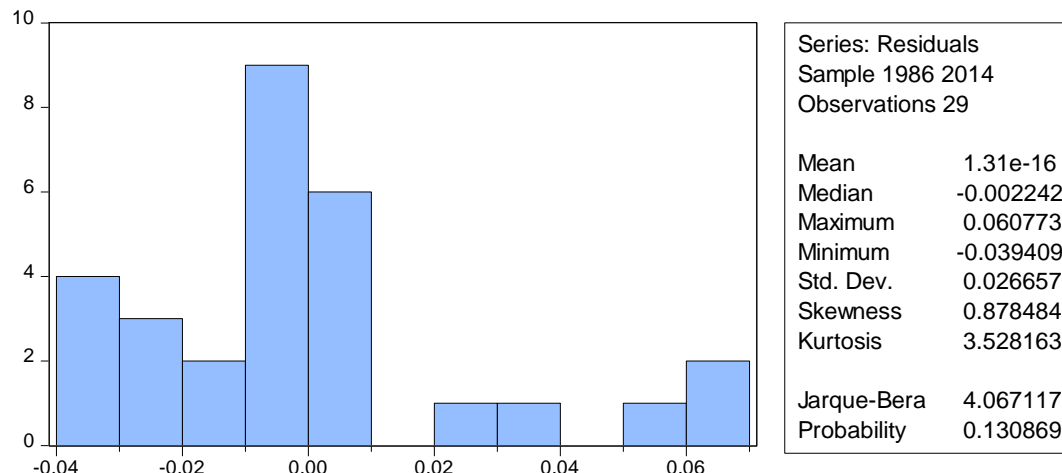
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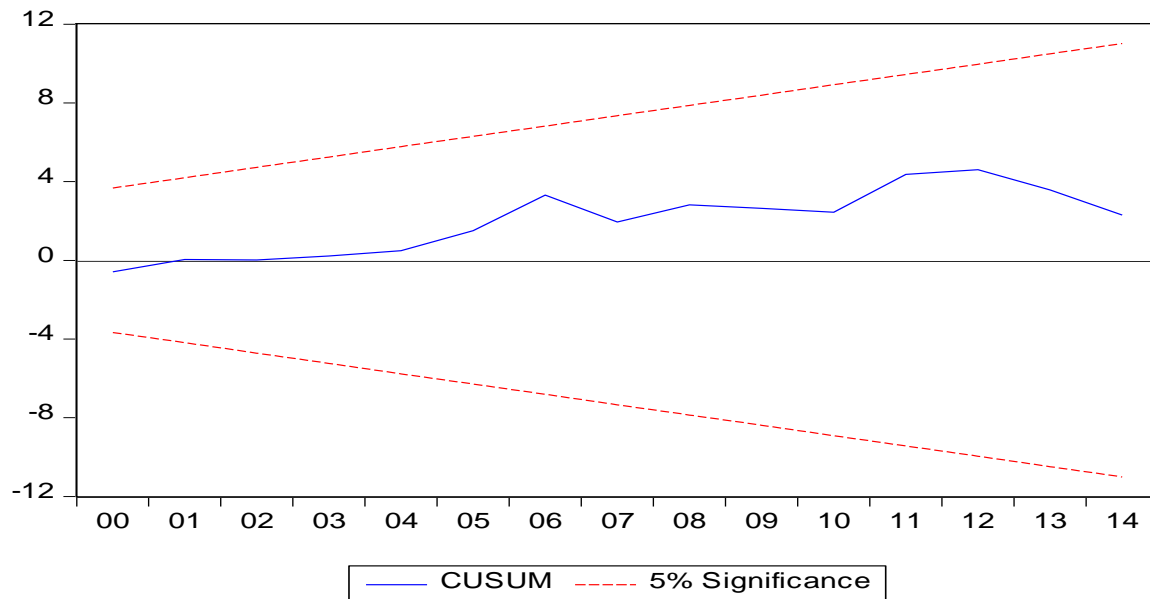
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APPENDIX: DIAGONISTICS FOR ECM

Normality Test

Series: Residuals	
Sample 1986 2014	
Observations 29	
Mean	1.31e-16
Median	-0.002242
Maximum	0.060773
Minimum	-0.039409
Std. Dev.	0.026657
Skewness	0.878484
Kurtosis	3.528163
Jarque-Bera	4.067117
Probability	0.130869

Stability

Serial Corelation

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.142688	Prob. F(2,13)	0.8684
Obs*R-squared	0.622934	Prob. Chi-Square(2)	0.7324

Heteroscedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.765490	Prob. F(13,15)	0.6825
Obs*R-squared	11.56608	Prob. Chi-Square(13)	0.5635
Scaled explained SS	3.911542	Prob. Chi-Square(13)	0.9921