International Journal of Scientific Research and Engineering Development-– Volume 5 Issue 6, Nov- Dec 2022

Available at www.ijsred.com

RESEARCH ARTICLE OPEN ACCESS

Effects of Public Expenditure Growth on Economic Growth in Kenya

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ABSTRACT

The effect of public expenditure growth on economic growth has given rise to conflicting views among economists. Some view a large government size as harmful to economic growth due to inefficiencies inherent in government. The other group of economists argues that a larger size of government is likely to enhance economic growth. Kenya's public expenditure has been experiencing rapid growth since 1963, while GDP growth over the same period has not followed the same path. The main objective of this study was to examine the effects of government size on economic growth in Kenya for the period 1971-2021.The study used secondary data extracted from Economic Surveys, Statistical Abstracts published by the Kenya National bureau of Statistics and Kenya Institute of Public Policy Research for the period 1971-2021. The (Autoregressive distributed lag (ARDL) model was used to test the causal link between public expenditure growth and economic growth in Kenya during the period. The long run regression results showed that the effect of recurrent expenditure on economic growth was non-significant while the effect of development expenditure was significant. The study recommended government to slow recurrent expenditure to tame growth of public expenditure.

Key Words; Public expenditure, GDP growth, Recurrent expenditure, Development expenditure.

Introduction

Government plays an important role in economic growth by imposing both positive and negative effects on economic development. Public expenditure is important in the provision of public good provision, accommodating externality and for the pursuit of socially optimal level of investment both public and private (Bergh and Henrekson, 2011).

As governments expenditures continue to grow understanding optimal government spending level is particularly important.According to Armey (1995) low government expenditure increases economic growth until it reaches a certain level, on the contrary excessive government expenditures reduce economic growth. Barro (1989), Armey (1995), and Scully (1998, 2003) did theoretical and empirical research on the existence of an optimal size of government as depicted by a concave curve. This theory argued that as government continues to grow as a share of the economy,expenditures are channeled into less productive (and later counterproductive) activities, causing the rate of economic growth to diminish and eventually decline.

Gwartney (1998) postulates that certain functions of government such as the protection of individuals and their property and the operation of a legal system to resolve disputes should enhance economic growth. Governments can enhance growth through efficient provision of public infrastructure. However, as government continues to grow and more and more resources are allocated by political rather than market

forces, two major factors suggest that the beneficial effects on economic growth will wane and eventually become negative. First, the higher taxes and or additional borrowing required to finance government expenditures exert a negative effect on the economy. Thus, even if the productivity of government expenditures does not decline, the disincentive effects of taxation and borrowing, as resources are shifted from the private sector to the public sector, will exert a negative impact on economic growth.

Public Expenditure in Kenya

The structure of Kenya's public expenditure can broadly be categorized into capital and recurrent expenditure (Republic of Kenya, 2010).Public expenditure as a share of GDP in Kenya has been on a general upward trend since the country gained independence. Despite the rapid growth rate in public expenditure in Kenya, economic growth has not followed the same pace.

In Kenya over the years the government has been seen to be spending too much, particularly in recurrent expenditure. According to the Republic of Kenya (2008), public expenditure levels in 2006/2007, at 29.9 percent of the GDP, were way above that for most low income countries such as Ghana and Uganda which was 19 percent and 21 percent respectively.

Table 1.1

Year	2000	2005	2010	2015	2020
GDP Growth%	1.1	5.9	5.8	5.8	2.2
Share of exp to GDP %	26.3	27.9	33.3	34.2	36.5

Table 1.1 GDP Growth and Government Size.

Source: statistical abstracts of different years

Table 1.1 shows growth of the size of government in Kenya from the year 2000 to 2020. From the table there is evidence that the size of government has been rising. The growth of government size is that of double digit while GDP is growing at a single digit. The public expenditure report (2010) asserts that the wage bill has been increasing in real terms in proportion to GDP. The increasing wage bill in turn accounts for the rapid growth in government size as shown in the table above. Therefore a review of the overall size and functions of the public sector should be undertaken to ensure that the resource allocation is efficient, and if not, that the resources can be reallocated to the most productive priorities (Republic of Kenya 2010).

This realization perhaps, has informed the fiscal strategy in the country, which focuses on expenditure reduction, expenditure restructuring and expenditure reform.

Statement of the problem

Kenya registered a steady growth in government expenditure since independence in 1963. However, the implication of the large expenditure on economic growth has not been clearly established (Njuguna, 2009). While public expenditure has been growing steadily, economic growth shown mixed trends. The economic growth has been fluctuating between 1963 and 2021 in Kenya (World Bank, 2016). In 2021, real GDP growth for Kenya was 5.7%. This was a decrease from 2013 which was at 6.1%. Though Kenya real GDP growth fluctuated substantially in recent years, it tended to increase through 2015.

This study thus adopts a different approach by using the two main components of public expenditure to explain the relationship and causal link between public expenditure and economic growth in Kenya. The results of the study will help explain which the components of public expenditure and their effects on economic growth.

Research Question

1. What is the effect of public expendituregrowth on economic growth in Kenya?

Research Objective

1. Determine the effect of public expenditure growth on economic growth in Kenya?

Significance of the Study

Analyzing the impact of government size will enable policy makers to restrict government spending to levels that contribute positively to economic growth.Understanding public expenditure growth will help policy makers to achieve the objective of reducing public expenditure by dealing with factors that lead to its growth.

Scope of the Study

The study utilized data available from the KNBS, Economic Survey journals, ministry of finance and planning and development and other relevant data. Data from 1971 to 2021 was be used, covering a period of fifty years, time series data was used in the study.

Literature Review

This chapter is divided into three sections. The first section is the theoretical literature which reviews the existing theories of public expenditure. The second section reviews empirical literature on studies carried out on the relationship between government size and economic growth. The final section gives an overview of existing literature showing the gap that is to being filled by the current study.

Theoretical Review

There is sufficient evidence in economic literature on the relationship between public expenditure and economic growth which dates back to the 19th century.

With the advent of welfare and public sector economics the role of the state has expanded especially in the area of infrastructural provision and theory of public expenditure is attracting increasing attention. This tendency has been reinforced by the widening interest of economists in the problems of economic growth, planning, regional disparities and distributive justice (Bhatia, 2002).

Wagner's Law

This theory was developed by Adolph Wagner (1886) and is popularly known as the Wagner's law. Wagner revealed that there are inherent tendencies for the activities of different layers of a government such as central, state and local governments to increase both intensively and extensively. This theory maintained that there was a functional relationship between the growth of an economy and government activities with the result that the governmental sector grows faster than the economy.

According to Wagner's law the development of an industrial economywill be accompanied by an increased share of public expenditure in gross nationalproduct. Musgrave and Musgrave (1989) opined that as progressive nationsindustrialize, the share of the public sector in the national economy grows continually.

Keynesian Theory

The Keynesian theory argues that growth rates of an economy vary with aggregate demand and as such firms react by producing more or less goods for consumer markets.

The Keynesians see demand as prerequisite for growth and their analysis concludes that aggregate demand policies can be used to improve economic performance. Keynes (1936) believed that during depression government intervention was needed as a short term cure. The solution to economic depression was to induce the firms to invest through some combination of reduction in interest rates and government capital investment including infrastructure. Government will then increase public spending giving individuals, purchasing power

and producers will produce more, creating more employment. This is the multiplier effect that shows causality from public expenditure to national income growth.

Keynes categorized government expenditure as an exogenous variable that can generate economic growth instead of an endogenous phenomenon. He believed the role of the government to be crucial as it can avoid depression by increasing aggregate demand and thus, switching on the economy again by the multiplier effect. According to Ram (1986) government expenditure can help improve the level of productive investment, hence economic growth and development can be secured. Thus government expenditure has a positive impact on economic growth.

Endogenous Growth Theory

The theory was proposed by Romer (1990), and it argues that technological progress defined as the Solow residual is the main determinant of economic growth. Endogenous growth model states that the main determinants of economic growth are treated as endogenous variables that can be verified. The model is based on the reason that the source of growth of the independent variables can be tracked down by decomposing the exogenous variables in the neoclassical growth theory. Then the exogenous variables become endogenous variables in the endogenous growth theory. The model further implies that the government can enhance economic growth in the long run by influencing factors in the model; investments in capital, research and development and education. However, the government can also influence economic growth negatively (Carling, 2012).

Empirical Review

Numerous studies have been conducted to investigate the relationship between government spending and economic growth. Landau (1983), using a sample of 96 countries found that the share of government consumption to GDP reduced economic growth which was consistent with the pro-market view that the growth in government constrains overall economic growth.

Landau (1986) extended the analysis to include human and physical capital, political, international conditions as well as a three year lag on government spending in GDP. Government spending was disaggregated to include investment, transfers, education, defense and other government consumption. The results in part mirrored the earlier study (of 1983) in that general government consumption was significant and had a negative influence on growth. Education spending was positive but not significant.

Muthui*et al* (2013) conducted a study on the impact public expenditure components on economic growth in Kenya using the Keynesian theory. The study period was 1964 to 2011 and data on the components of government expenditure analyzed. The study also conducted Granger causality test to determine causality between government expenditure and economic growth which was found to be both ways. The results for this were that on average public expenditure and economic growth is linked in the long-run. From this study it was evident that the composition of government expenditure affects economic growth. Further key public expenditure components like education, transport and communication and public order and security are the major drivers of economic growth. This study used the linear approach and was based on the Keynesian model.

Simiyu (2015) carried out a study to explain the relationship between public expenditure and economic growth in Kenya using Vector Error Correction Model (VECM). The study used time series data for the period 1963 to 2012. Using Johansen co integration test and Vector Error Correction Model the study estimated Short run and long run relationship between public expenditures and economic growth in Kenya. The results of the study revealed that components of public expenditure and economic growth both move towards a long run equilibrium with an adjustment speed of 3.6% after short run fluctuations in the equilibrium. The results also suggested no causal relationship between public expenditure and economic growth in Kenya. However there was an existence of a unidirectional causation between military and health expenditure. The study recommended transfer of part of the military budget to the health sector.

Theoretical Framework

This study adopted the basic growth accounting and use production function model of Solow (1956) in which the rate of economic growth is a function of capital, labor accumulation and factor productivity. According to Agell, Lindh and Ohlsson (1997), this model assumed that total factor productivity depends on the rate of export, level of investment, capital accumulation and the size of government consumption.

Methodology

Introduction

This chapter describes the theoretical framework, model specification, methods of estimation, and sources of data for the study.

Research Design

A research design outlines a plan that is used to generate answers to research problems. This study adopted a longitudinal research design. This is because it allowed relationship between the variables to be assessed at intervals to assess their effects on economic growth. The study used non-experimental design due to the inability to alter the predictor variable in this case public expenditure.

Model Specification

Model Specification The study used a Distributed Lag Model with lagged explanatory variables which included lagged values of dependent variables to test for the relationship between economic growth and public expenditure components. The model is called distributed lag model because the influence of the explanatory variable on the dependent variable is distributed over a number of past values of x. The general form of the distributed lag model was defined as;

$$\mathbf{EG_t=\beta_0+\beta_1 RE_t+\beta_2 RE_t+ \ldots+\beta_q RE_{t-q}+\mu_t} \quad \mathbf{\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (1)}$$

Where

$\mathbf{EG_t}$ is the Economic Growth at time t

$\mathbf{RE_t}$ is the Recurrent Expenditure at time t

μ_t is the error term

qis the maximum lag

For the development expenditure component

$$\mathbf{EG_t=\beta_0+\beta_1 DE_t+\beta_2 DE_t+\ldots+\beta q DE_{t-q}+\mu_t} \quad \mathbf{\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (2)}$$

Where

$\mathbf{EG_t}$ is the economic growth at time t

$\mathbf{DE_t}$is development expenditure

μ_t is the error term

qis the maximum lag

Lagged values of the variable are important explanatory variables in most economic relationships because economic behavior in any one period is also determined by pattern and behavior of previous values. The study used Likelihood Ratio (LR) test to select the appropriate lag length. This ensured that the residuals did not have significant autocorrelation because autocorrelation would lead to inconsistent least square estimates.

Overall output model is specified as:

$$EG_t=\beta_0+DE_t+RE_t \text{----------} (3)$$

Data Collection

The study used secondary data from Economic Surveys, Statistical Abstracts published by the Kenya National bureau of Statistics, Kenya Institute of Public Policy Research and World Bank data. This data will included public expenditure (recurrent expenditure, development expenditure) and economic growth based on real

GDP. For purposes of estimation, yearly time series secondary data covering the period 1963 – 2015 was used in the study. The study covered 1971 – 2021 period.

Data Analysis and Conclusion

Introduction

This chapter presents the findings based on the analyzed data. Specifically, it includes descriptive statistics, findings, conclusion and recommendations of the study.

Descriptive Statistics Table 2: Descriptive statistics Expenditure

Variable	Obs	Mean	Stddev	Min	Max
RGDP	54	1.673	1.875	0.062	9.765
DE	54	8.994	12.764	0.433	81
RE	54	52.753	129.453	5.929	918

The descriptive statistics presented in table 2 reveal that economic growth as measured by real GDP has a mean of 1.673. Development expenditure has a mean of 8.994 and recurrent expenditure has a mean of 52.753. The standard deviation indicates a high variability in the data especially in recurrent expenditure. During the period, the lowest value of RGDP was 0.062with a maximum of 9.765. Development expenditure reflected a low of 0.433and a high of 81 while recurrent expenditure showed a low of 5.929 and a high of 918. This shows that despite the public expenditure varying within the period, recurrent expenditure varied more compared to the development expenditure.

Findings

Estimation results for the overall model revealed that holding development and recurrent expenditure constant within the period, the economic growth would stand at 0.754. If development expenditure changes by a unit within the period, economic growth increase by 0.158 while a unit change in average recurrent expenditure would decrease economic growth by 0.0086.

Conclusion

The rapid growth of public expenditure in Kenya has caused concern among policy makers on the implication of such growth, especially to the economy as a whole, and the private sector in particular. Kenya has experienced rapid public expenditure growth over the past three decades, with public expenditure growing at a faster rate than the growth rate of GDP.

The results of this study indicated that all the independent variables recurrent expenditure and development expenditures were positively related to economic growth but non-significant.

Further the results reveal a long-run relationship between economic growth and recurrent expenditure but the effects disappear eventually. However the impulse response function revealed a positive effect between economic growth and development expenditure.

Therefore in order to reduce the rate of growth of recurrent expenditure, the government should streamline its civil service to the minimum by freezing recruitments in line with the economic growth. This is because the study found out that expenditure downsizing and outsourcing has a positive effect on economic growth. The government should also adopt the advanced technologies in its service delivery to cut down the size of civil service.

References

Armey, R. (1995): The Freedom Revolution, Regnery Publishing Co;Washington, D.C.

Bergh A. and Henrekson M. (2011), *Government Size and Growth: A Survey and Interpretation of the Evidence*: Research Institute of Industrial Economics, Stockholm.

Barro, R. J. (1990):*Government Spending in a Simple Model of Endogenous Growth*: Journal of political Economy,MIT Press, Cambridge.

Bhatia H. L. (2002): Public Finance, 25th Edition: Vikas Publishing House, New Delhi.

Carling, R., (2012): Keynes, Hayek and the Great Recession. Policy, 28(4), 17-21.

Gwartney J. and Holcombe R, (1998):*The Scope of Government and the Wealth of Nations*: Cato Journal

Keynes, J. M., (1953): The General Theory of Employment, Interest and Money. Orlando Harcourt Inc.

Landau, D. L. (1983): *Government Expenditure and Economic Growth*. A Cross Country Study, Southern Economic Journal Vol. 49

Musgrave A. (1989) Public Finance and Public Choice: Two contrasting visions of the state. MIT. Press

Muthui N., Kosimbei G., Maingi J. and Thuku K. (2013): *The Impact of Public Expenditure Components on Economic Growth in Kenya, 1964-2011*: International Journal of Business and Social Science, Vol. 4 No. 4

Njuguna, N.J. (2009) Government Expenditure and Economic Growth in Kenya: An empirical analysis 1963-2006. Unpublished M.A Thesis, Nairobi: Kenyatta University

Ram, R. (1986): *Government Size and Economic Growth: A New Framework and Some Evidence from Cross-Section and Time-Series Data*;American Economic Review.

Republic of Kenya (2008): Public Expenditure Review, Government Printers, Nairobi.

Republic of Kenya (2010): Public Expenditure Review, Government Printers, Nairobi.

Romer, P. M (1990): Endogenous *Technologies Change,* Journal of Political Economy, 98

Scully, G. (1998): *What is the optimal size of government in the US?*National Center for Policy Analysis, Policy Report

Scully, G. (2003): *Optimal Taxation, Economic Growth and Income Inequality*, Public Choice Report.

Simiyu N. (2015) Explaining the Relationship between Public Expenditure and Economic Growth in Kenya using Vector Error Correction Model (VECM). International Journal of Economic Sciences

Solow, R.M. and Swan, T.W. (1956) Economic Growth and Capital Accumulation. Economic Record
Wagner R. E. and Weber E. (1977): *Wagner's law, Fiscal Institutions and Growth of Government;* National Tax Journal, Vol. 30

World Bank (2008) Financing Public Infrastructure in Sub-Saharan Africa: Patterns, Issues and Options, World Bank Publication.

