Government Spending for Economic Growth in Ethiopia

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Abstract
This study is designed to address the relationship that can be revealed between real gross domestic product and various composition of government expenditure like: agriculture, education, health, transport and communication, urban development and housing, total capital expenditure and total recurrent expenditure in Ethiopia. In doing so, it answers the research question: which composition of government expenditure promotes economic growth in Ethiopia? The sources of data being used in this study are purely of secondary data for the period between 1975-2011G. C as obtained from Ministry of Finance and Economic Development (MOFED) and various Federal and Regional Bureaus. The methodology used in this research is a Co-integration error correction model. The output of this research showed that expenditure on health and total capital expenditure are both positive and statistically significant in explain the growth of Ethiopian economy. However, Expenditure on agriculture, education, health, transport and communication, urban development and housing, and total recurrent expenditure are statically insignificant.

Keywords: public expenditure, economic growth, co-integration, unit root test.

1.0. Introduction
Fiscal policy is one of the basic instruments being used for stabilizing and to bring about growth in the economy in a desired way through enforcing monitoring mechanisms. The components of fiscal policy include: government expenditure, tax, and public debt (Premchand 1983). As such, government expenditure represents one of the significant components of fiscal policy instruments for achieving various objectives of developing countries. In line with this, one of the objectives of governments in developing countries is to bring about economic growth. According to the Ethiopian Ministry of Finance and Economic Development Annual Report (2010/11), the most important development purpose of Ethiopia is to reduce poverty in a relatively short period of time. This can be accomplished with implementation of broad-based development policies that would not only enhance economic growth but would also be governed by the principles of ensuring equitable distribution of the benefits from such growth.

Again, using government expenditure as a tool to boost economic growth and enhance the life of the population, Ethiopia has set down both medium and long-term plans. Its medium term plan is to attain the Millennium Development Goals (MDGs) at the end of the implementation of the five-year plan the Growth and Transformation Plan (GTP). The planning period for the GTP covers the period 2010/11-2014/15. Its long-term plan, on the other hand, is to build on the attainments of the middle-income country in the coming ten years (ibid).

Hence, to improve and develop social, economic and political conditions of a country, the Ethiopian government has taken different measures of spending on various sectors. As to Adams (1898), public expenditure is supposed to perform four major functions: under development function's education, public recreation, maintaining equitable conditions for the execution of public business, and public investigation are included; in protective functions such as defense, police, court and protection against social diseases are considered; in commercial functions such as setting of commercial establishments under state control (public sector undertakings) are incorporated; and last in infrastructure functions such as dam, public works, transport and communication, energy, irrigations, etc. are included.

In the views of Vu Le and Suruga (2005), economists tried to explain as to how public expenditure is sustaining the growth of the economy in two side scenario. On the first case, public expenditure is supposed to perform four major functions: under development function's education, public recreation, maintaining equitable conditions for the execution of public business, and public investigation are included; in protective functions such as defense, police, court and protection against social diseases are considered; in commercial functions such as setting of commercial establishments under state control (public sector undertakings) are incorporated; and last in infrastructure functions such as dam, public works, transport and communication, energy, irrigations, etc. are included.

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more workers are employed. In the short run, this will stimulate the economy by increasing aggregate demand. In the long run, the highway will improve the economy by reducing transport costs. Government in infrastructure investment in developing nations provides benefits to the poor. A study of 16 villages in Bangladesh, showed that villages that benefited from new government provided infrastructure enjoyed a 33% increase in average household incomes (The World Bank, World Development Report 1990) infrastructure is not an once-for-all-investment greater spending on infrastructure is the key to economic growth and development. Government can also accelerate growth through spending on human capital and health to expand the productivity of the labor force. Spending on technical and university education enhances the knowledge base of the economy and raises the level of skills. Research and development expenditures and the provision of new technology complement spending on human capital resources (Michael Howard 2001).

Currently, it is important to study that examining the composition of government spending affects economic growth in Ethiopia. Even if there is marvelous growth in the literature on public expenditure and economic growth, there are several gaps. There is no universal agreement on which composition of the expenditure has direct effect on economic growth. Therefore, the objective of this paper is to analyze the compositions of public expenditure to the growth of the Ethiopian economy. This will provide important information for the usages of limited public financial resources. The rest of this article is structured as follows: Following section one is section two, which deals with Literature review. Section three discusses Specification and Estimation of the Model. Empirical results are discussed in section four. Finally Section five concludes and suggests policy recommendation of this article.

2.0. Literature Review

Public Expenditure forms an integral part of the study of Public Finance, which studies the complex problems that center on the revenue expenditure process of government (Central, State and Local). Public expenditure refers to the expenditure incurred by the government for the maintenance of various public good and to promote the welfare of the society as a whole.

Economic growth stimulates quantitative change or expansion in a country's economy. It is conventionally measured as the percentage increase in gross domestic product (GDP) or gross national product (GNP) during one year. The growth of the economy is essential for sustainable development. It is difficult for developing countries to enhance the standard of living for the population without economic growth. According to Smith and Wahba (1994), Public expenditure can stimulate economic productivity by providing assistance for the establishment of new industries or the introduction of activities not yet launched by the private sector. It can also directly affect education, health, housing and the provision of basic needs. It can, through the provision of infrastructure, make it possible for economic development.

The relationship between public expenditure policies on economic growth is an ambiguous and long-standing issue in both theoretical and empirical research. It is also of critical importance for policymakers as they actively use public expenditure policies to correct externalities and ensure a satisfactory provision of public goods and services. Nevertheless, in practice, it is difficult to define the optimal policy because the reaction may differ from one country to another.

2.1. Theoretical Literature

Economic theory provides some of the reasons for government expenditure as correcting market failures and improving equity. It is better to discuss some of the important theories which seek to explain the factors that determine increasing public expenditure. There are different theories of public expenditure that suggest economic growth is the end product of prudent management of scarce financial resources. Some of the acceptable public expenditure theories are:

1. Wagner’s law of increasing state activities
2. Wiseman and Peacock’s theories
3. Keynesian Theories

2.1.1. Wagner’s Law of Increasing State Activities

The German economist, Adolf Wagner (1835-1917) advanced his ‘law of rising public expenditures’ by analyzing trends in the growth of public expenditure and in the size of public sector in many countries of the world. Wagner’s law or the law of increasing public expenditure postulates that:

i. The extension of the functions of the State leads to an increase in public expenditure on administration and regulation of the economy;

ii. The development of modern industrial society would give rise to increase political pressure for social progress and call for increased allowance for social consideration in the conduct of industry; and

iii. The rise in public expenditure will be more than a proportional increase in the national income (income elastic wants) and will thus result in a relative expansion of the public sector (Teshome Ketema 2006).
The Laws of Wagner propose that there is long-term trends on government spending. To increase relative to the Gross Domestic Product. To state it differently, “the causality of the link between public expenditure and national income runs from national income to public expenditure.”

2.1.2. Wiseman and Peacock’s Theories.
Wiseman and Peacock conducted a study of public spending in the United Kingdom during 1890-1955. “The main resent of the theory is that public expenditure does not increase in a smooth and continuous manner, but in jerks or step like fashion.”

Adesoye A. B. et al (2010) indicated that public expenditure increases and makes the inadequacy of the present revenue quite clear to everyone. The movement from the older level of expenditure and taxation to a new and higher level is the displacement effect. The insufficiency of the revenue as compared with the required public expenditure creates an inspection effect. The government and the people review the revenue position and the need to find a solution to the important problems that have come up and agree to the required adjustments to finance the increased expenditure. In other words, there is a concentration effect. The concentration effect also refers to the apparent tendency for central government economic activity to grow faster than that of the state and local-level governments.

2.1.3. Keynesian Theories
According to Douglas Mackenzie (2008), Keynesian economics has reference to a set of theoretical explanations for persistent unemployment and to specific governmental employment policies. The general notion behind Keynesian economics is that persistent unemployment derives from decreases in total private sector spending. According to Keynesian economists, the government can alleviate unemployment by increasing the total amount of spending in the economy. Keynes assumes that causality runs from public expenditure to economic growth in times of recessions. The Keynesian theory postulates that expansion of government spending accelerates economic growth.

Regarding the link between public expenditure and economic growth, the theory of Keynesian macro economy assumed that high public spending leads to increase aggregate demand and in turn, increase the growth of the economy. On the other hand, the theory of Wagner inclined towards the opposite view. The second theory argues that an increase in the national income cause more public spending (Mwafaq M. Dandan 2011). To Keynes, public expenditure is an exogenous factor and a policy instrument for increasing national income. In contrast, Wagner’s law proposes that there is a long-run tendency for public expenditure to grow relative to some national income aggregates such as the Gross Domestic Product (GDP).

On the other hand, according to (Masaviru 2012 p.61) The Wiseman and Peacock’s hypothesis says that there is usually a considerable increase in revenue to governments due to the economic developments over the years, thereby leading to an increase in public expenditure. Wiseman & Peacock (1961) argue that spending increases when governments spend to meet demands made by the population regarding various services. Furthermore, during wars, tax rates are increased by the government to generate more funds to meet the increase in defense expenditure; such an increase in revenue, therefore, gives rise to government expenditure.

2.2. Empirical Literature
When we see empirical studies concerning the relationship between composition of Public expenditure and economic growth, most results are still mixed. There is no universal agreement on which compositions of public expenditure directly promote economic growth. Scholars have examined the relationship between government expenditure on economic growth. Teshome Ketema (2006) examined the impact of government spending on economic growth in the case of Ethiopia for the period 1960/61-2003/04. The author used econometric analysis to see the impact of various compositions of government spending on the growth of real GDP using Johanson Maximum Likelihood Estimation procedure. He found that only expenditure on human capital has a long-run significant positive impact. Productive government expenditure shows the negative and insignificant impact on growth of real GDP, which indicates the inefficiency and poor quality of public expenditure. He found that in the short run, all compositions of government expenditure do not have significant meaning in explaining economic growth.

Abu Nurudeen and Abdullahi Usman (2010) used disaggregated analysis to investigate the effect of government expenditure on economic growth In Nigeria, for the period 1970-2008. The author explored that total recurrent expenditures, total capital, and expenditure on education have negative effect on economic growth. However, increasing government expenditure in the areas of transport, communication and health will results with economic growth. In addition to the above, Adewara Sunday Olabisi and Oloni, Elizabeth Funlayo (2012) empirically analyzed the composition of public expenditure and economic growth in Nigeria between 1960 to 2008 using the vector Autoregressive models (VAR). The authors concluded that expenditure on transport; agriculture and health are positive and significantly related with economic growth. However, expenditure on Education is both negative and not significant to economic growth.

Niloy Bose M.et al (2007) examined the growth effects of government spending with a particular focuses on disaggregated government expenditures for a panel of 30 developing countries between 1970s and
They found that the share of government capital expenditure in GDP is positively and significantly correlated with economic growth, but current expenditure is insignificant. In the disaggregated level, government expenditure in education and total expenditures in education are the only spending that is significantly associated with growth. In support of the above, John Mudaki (2012) investigated the effect of the composition of public expenditure on economic growth using data from 1972 to 2008 for Kenya. He concluded that expenditure on education was a highly significant determinant of economic growth while expenditure on economic affairs, transport and communication were also weakly significant to economic growth. On the other hand, expenditure on agriculture was negatively significant on economic growth and expenditure on health is insignificant determinants of economic growth.

Lotto (2011) studied the effect of sectoral expenditure to economic growth with the period from 1980 to 2008 in Nigeria. His result showed that in the short-run, expenditure on health and transport and communication was positively related to economic growth. On the other hand, spending on agriculture was negatively related to economic growth. However, the relationship between expenditure on education and economic growth was negative and insignificant. The impact of education, though also negative was not significant.

Tajudeen Egbetunde and Ismail O. Fasanya (2013) explored that the impact of public expenditure on economic growth with the period from 1970 to 2010 making use of annual time-series data in Nigeria. They used the bound's testing Auto-Regressive Distributed Lag (ARDL) approach to analyze the long run and short-run relationships between public expenditure and economic growth. They found that total expenditure has a negative impact on economic growth, however; recurrent expenditure has a little significant positive impact on economic growth in Nigeria.

3.0. Specification and Estimation of The Model

This study adopts the model used by Abu, N. Abdullahi (2010) with the article titled “Government Expenditure and Economic Growth in Nigeria” this model is adjusted to The Ethiopian situation by including Urban development & housing. This study used Co-integration and Error correction modeling. It is appropriate to scrutinize the short run and long run relationship between the dependent and independent variables under consideration and make a decision on the allocation of the scarce resource. However, the theoretical framework that the study would be based on is the Keynesian models.

\[ R_{gd} = f(a, e, h, t, u, t, c, r) \]  

Where: \( R_{gd} \) means Real Gross Domestic Product  
\( a \) means expenditure on agriculture  
\( e \) means expenditure on education  
\( h \) means expenditure on health  
\( t \) means expenditure on transport and communication  
\( u \) means expenditure on urban and housing  
\( t \) means Total capital expenditure  
\( r \) means Total recurrent expenditure

The above equation is converted into linear form and the result is indicated below:

\[ R_{gd} = \beta_0 + \beta_1 a + \beta_2 e + \beta_3 h + \beta_4 t + \beta_5 u + \beta_6 t + \beta_7 r + u_1 \]  

The equation above is transformed into to log model and it becomes;

\[ \ln R_{gd} = \beta_0 + \beta_1 \ln a + \beta_2 \ln e + \beta_3 \ln h + \beta_4 \ln t + \beta_5 \ln u + \beta_6 \ln t + \beta_7 \ln r + U_1 \]

3.1. Define the Research Variables

The dependent variable is the economic growth in real GDP. The explanatory (independent) variables are various levels and components of government expenditure. For the purpose of this study, government expenditure denotes country wide budgetary expenditure, including the federal government, regional and local governments.

The level of government expenditure and composition of government expenditure are important determinants of growth.

The variables are measured as follows.

- Economic growth refers to the changes in real GDP.
- Real GDP in turn is obtained by dividing GDP at current market price by the consumer price index (CPI).
- Torep is measured as total recurrent expenditure divided by the CPI.
• Tcap is captured by the total capital expenditure divided by the CPI.
• Eagr is captured by government expenditure on agriculture divided by CPI.
• Hexp is measured as government expenditure on health divided by CPI.
• Eexp is captured by government expenditure on education divided by CPI.
• Etac is measured as government expenditure on transport and communication divided by CPI.
• Uah is measured as government expenditure on urban development and housing by CPI.
• U refers to the error term. Prior to estimation of the growth model above, standard econometric tests like stationarity test and co-integration test will be conducted in order to avoid the generation of spurious regression results.

3.2 Sources of Data
This paper used Ethiopian data that covered from the period 1975-2011. The data is primarily collected from The Ethiopian Ministry of Finance and Economic Development (MOFED) and the various Federal and Regional Bureaus.

4.0 Empirical Result
Using E-views program as a tool, this paper analyzed the secondary data between 1975-2011. E.C. empirical results and discussions are illustrated in the following manner.

4.1 Unit Root Test
In time series model, Testing for the existence of unit roots is precondition for the study to investigate whether the variables are stationary or not. To avoid the generation of spurious (nonsense) regression results, Standard econometric tests like co-integration test and stationarity (unit root) test is conducted. The study employed the Augmented Dickey Fuller (ADF) to test the order of integration of both the dependent and independent variables. The unit root tests results are presented in table 4.1. As it is revealed in the table below, except transport and communication, urban and development housing and Error term other variables are stationary at their first difference.
Table 4. Unit root test result based on ADF test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Augmented Dickey-Fuller Statistic</th>
<th>Dickey-Fuller (ADF) test</th>
<th>Critical Values</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>-2.797937 (0.0085)</td>
<td>1% level</td>
<td>-4.234972</td>
<td>Stationary at first differences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5% level</td>
<td>-3.540328</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>AGR</td>
<td>-2.724619 (0.0102)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at first differences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>EDUC</td>
<td>-2.716645 (0.0104)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at first differences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>HE</td>
<td>-3.139600 (0.0036)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at first differences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>TRE</td>
<td>-2.422050 (0.0211)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at first differences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>TCE</td>
<td>-2.826826 (0.0079)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at first differences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>UAH</td>
<td>-3.964392 (0.0192)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>TAC</td>
<td>-4.591437 (0.0041)</td>
<td>5% level</td>
<td>-3.540328</td>
<td>Stationary at level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.202445</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% level</td>
<td>-4.234972</td>
<td></td>
</tr>
<tr>
<td>ECM</td>
<td>-7.090314 (0.0000)</td>
<td>5% level</td>
<td>-3.544284</td>
<td>Stationary at level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% level</td>
<td>-3.204699</td>
<td></td>
</tr>
</tbody>
</table>

Note that 5% significance level is used for the decision of Unit root.

U = ECM is stationary at level this implying that the variables are co integrated

Source: Computed by using E-views

4.2. Co-Integration Test

To check whether the variables are co-integrated or not, a Johansen Maximum Likelihood method is used to see the variables have stable long run linear relationship. In Johansen Maximum Likelihood method, the data used should be in the same order. Then these data are tested by both trace statistics and Max-Eigen statistics with 5% critical value. As shown in table 4.2, both resulted showed that there is long run association ship in the model.
Sample (adjusted): 1978 2011  
Included observations: 34 after adjustments  
Trend assumption: Linear deterministic trend (restricted)  
Series: LNRGDP LNEEDUC LNEHE LNTRE DLNTCE LNEUAH LNETAC LNEAGR  
Lags interval (in first differences): 1 to 1  
Unrestricted Co integration Rank Test (Trace)  

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.867209</td>
<td>251.6777</td>
<td>187.4701</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.823012</td>
<td>183.0325</td>
<td>150.5585</td>
<td>0.0002</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.752695</td>
<td>124.1557</td>
<td>117.7082</td>
<td>0.0183</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.608427</td>
<td>76.6532</td>
<td>88.8038</td>
<td>0.2717</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.470792</td>
<td>44.7753</td>
<td>63.8761</td>
<td>0.6574</td>
</tr>
<tr>
<td>At most 5</td>
<td>0.279682</td>
<td>23.1387</td>
<td>42.9152</td>
<td>0.8726</td>
</tr>
<tr>
<td>At most 6</td>
<td>0.214616</td>
<td>11.9845</td>
<td>25.87211</td>
<td>0.8131</td>
</tr>
<tr>
<td>At most 7</td>
<td>0.104976</td>
<td>3.770743</td>
<td>12.51798</td>
<td>0.7750</td>
</tr>
</tbody>
</table>

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level  
* denotes rejection of the hypothesis at the 0.05 level  
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Co integration Rank Test (Maximum Eigen value)  

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Max-Eigen Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.867209</td>
<td>68.64516</td>
<td>56.70519</td>
<td>0.0022</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.823012</td>
<td>58.87682</td>
<td>50.59985</td>
<td>0.0057</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.752695</td>
<td>47.50245</td>
<td>44.94720</td>
<td>0.0228</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.608427</td>
<td>31.87787</td>
<td>38.33101</td>
<td>0.2282</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.470792</td>
<td>21.63670</td>
<td>32.11832</td>
<td>0.5217</td>
</tr>
<tr>
<td>At most 5</td>
<td>0.279682</td>
<td>11.15413</td>
<td>25.82321</td>
<td>0.9192</td>
</tr>
<tr>
<td>At most 6</td>
<td>0.214616</td>
<td>8.213806</td>
<td>19.38704</td>
<td>0.8020</td>
</tr>
<tr>
<td>At most 7</td>
<td>0.104976</td>
<td>3.770743</td>
<td>12.51798</td>
<td>0.7750</td>
</tr>
</tbody>
</table>

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level  
* denotes rejection of the hypothesis at the 0.05 level  
**MacKinnon-Haug-Michelis (1999) p-values  
Source: Computed by using E-views

4.3. Regression Result

As indicated on table 4.3, the Least Squares result showed that independent variables all together accounted 55.6 percentage changes in economic growth. On the other hand, considering the compositions of public expenditure at 10% and 5% critical value expenditures on health and total capital expenditure are statistically significant respectively in explaining changes in economic growth. For example, 1 percentage increase in total capital expenditure in the previous one year causes economic growth to increase by 0.25 percentages.

However, Expenditure on agriculture, education, transport and communication, urban development and housing, and total recurrent expenditure are statically insignificant. This result is in line with Teshome Ketema (2006) which states that only expenditure on human capital has long-run significant positive impact. Productive government expenditure shows negative and insignificant impact on growth of real GDP, which indicates the
inefficiency and poor quality of public expenditure.

Table 4.3 Regression Result
Dependent Variable: DLNRGDP
Method: Least Squares
Sample (adjusted): 1976 2011
Included observations: 36 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.014351</td>
<td>0.042833</td>
<td>0.335046</td>
<td>0.7401</td>
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<td>DLNCTE</td>
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<td>LNETAC</td>
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</table>

R-squared: 0.556036  Mean dependent var: 0.037238
Adjusted R-squared: 0.445045  S.D. dependent var: 0.129717
S.E. of regression: 0.096633  Akaike info criterion: -1.642656
Sum squared resid: 0.261464  Schwarz criterion: -1.290763
Log likelihood: 37.56781  F-statistic: 5.009739
Durbin-Watson stat: 2.320006  Prob(F-statistic): 0.000900

Source: Computed by using E-views

5.0. Conclusion and Policy Recommendation

Using government expenditure as a tool to boost economic growth and enhance the life of the population, Ethiopia has set down both medium and long-term plans. The growth of the economy is essential for sustainable development. Without economic growth, it will be difficult for developing country like Ethiopia to enhance the standard of living for the population. Therefore, this paper investigated the relationship between Economic growth and various compositions of Public expenditures by using co-integrated error correction modeling from the period 1975-2011G.C. the result showed that only expenditure on health and total capital expenditure is both positive and statistically significant. However, Expenditure on agriculture, education, transport and communication, urban development and housing, and total recurrent expenditure are statically insignificant.

Based on the above findings, this paper suggests the following recommendation. First, there is a need to manage and control Public expenditure both in allocation and executions. Second, there is a need to strengthen Federal Ethics Anti-corruption Commission (FEACC) and respective bureaus in the regions. As sited by Gyimah-Brempong (2006), discussed with public expenditure management, for example, concludes that “a 10 per cent increase in corruption perception, would lead to a 2.8 per cent reduction in growth rate in Africa, and 2.6 per cent in Latin America but only 1.7 per cent in Asia.” This increase in corruption perception results in lower level of economic growth. Finally, Future research is suggested why most of the public expenditure have insignificant relation with economic growth in Ethiopia.

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