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The Impact of Public Expenditures on Economic Growth in Jordan

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Abstract

This research aims at examining the impact of the public expenditures on economic growth in Jordan during the time period (1993–2013), by determining the contribution of the current and capital expenditures on Education, Health, Economic Affairs, and Housing and community Utilities as a percent of the total public expenditures, and then examining the impact of each one of them on economic growth in Jordan. Two mathematical models have been designed to measure this impact, the first one measures the impact of current functional expenditures, and the second model measures the impact of capital functional expenditures on economic growth in Jordan. The empirical results show that the impact of current and capital expenditures on education has failed to enhance economic growth, and that is due to the high cost of education, especially higher education in the private sector in Jordan, as well as the growing rate of unemployment, and expenditures on health and economic affairs should be encouraged due to their positive impact on economic growth.

Keywords: economic growth, capital expenditures, current expenditures

1. Introduction

Examining the impact of public expenditures on economic growth is a crucial step in understanding the sources, the consequences, the future paths of economic growth in Jordan, and in finding the appropriate recommendations to increase the contribution of different productive expenditures in achieving it. Financial policies play an important role in the developing countries. They are considered one of the effective financial tools that affect the public economic activities and the rise of the economic growth rate. Public expenditure is one of the most important tools of the fiscal policy, and especially the capital expenditures which may contribute in the growth of the national economy activities and in achieving the desired economic growth, when they well directed. So Jordan has paid more attention about the importance of the public expenditures in achieving the economic growth.

1.1 Problem Statement

The impact of public expenditures on economic growth needs to be studied specially in developing countries, where Jordan is one of them. As these countries share in the suffering from high rates of poverty and unemployment, poor utilization of available resources, and the accelerated rates in budget deficit as a percent of the GDP's of these countries. Consequently, this research seeks to empirically investigate the impact of public spending on economic growth in Jordan during the period (1993–2013). The researcher tries to test the Keynes theory that public expenditures can contribute positively to economic growth and Wagner's law (there is a concurrent grow of per capita income of an economy with the relative size of public expenditure). In an attempt to examine the impact of public expenditures on economic growth in Jordan, the researcher has formulated the following questions:

What is the contribution percent of each one of the four current expenditures (mentioned above) of the total current expenditures?

What is the contribution percent of each one of the four capital expenditures (mentioned above) of the total capital expenditures?

What is the impact of current public expenditure on economic growth in Jordan?

What is the impact of capital public expenditure on economic growth in Jordan?

What are the restrictions that limit the effectiveness of public expenditures in achieving economic growth in

Jordan?

1.2 Research Importance

The purpose of this paper is to examine the impact of public expenditures on economic growth in Jordan during the period 1993–2013, the researcher choose one single country with an attempt to make a more in-depth investigation and analysis, in that it investigates the partial and joint impacts of public expenditure on economic growth in Jordan using certain disaggregated components of government expenditure.

1.3 Research Objectives

This research aims to identify the impact of the public expenditures on economic growth in Jordan, by examining the contribution percent of each one of the current and capital expenditures on Education, Health, Economic Affairs, and Housing and Community Utilities of the total public expenditures, and then identifying the impact of each one of them on economic growth in Jordan.

1.4 Theoretical Literature

There is a widespread controversy among policymakers about the impact of increased public expenditures on achieving economic growth.

Defenders say that an increase in government spending leads to increasing and improving in the quality of public services provided by the government to their citizens, such as health services, education, housing and social welfare, and also lead to the development of the infrastructure which is necessary to encourage investment, thereby contributing to stimulate economic growth. While opponents say that the increase in government spending leads to expansion of the government size at the expense of the private sector, resulting in conversion of the productive resources in the economy from the efficient productive sectors to the government which is the less efficient sector, with a concomitant increase in the tax rate imposed on the productive sectors to provide sufficient financial fund to meet an increased government demand for money, which in turn reduces the production efficiency in the economy, and thus would hinder the achievement of economic growth. The theories used aim not only to explain the impact of public expenditure on economic growth, but also to find solutions in order to redistribute public expenditures on different productive sectors.

According to the Keynesian macroeconomic theory, public expenditures can contribute positively to economic growth. Hence, an increase in the government consumption is likely to lead to an increase in employment, profitability and investment through multiplier effects on aggregated demand (Urban & Nordensvard, 2013, p. 71). According to Keynes, 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 (Mitchell, 2005).

Wagner's Law: The law predicts that the development of an industrial economy will be accompanied by an increased share of public expenditure in gross national product (Aladejare, 2013). Wagner's law states that, as per capita income of an economy grows, the relative size of public expenditure grows; the relative size of public expenditure grows along with it. As the economy grows, there will be increase in the number of urban centers, with the associated social vices such as; crime, which require the intervention of the government, to reduce such activities to the nearest minimum. Large urban centers also require internal security, to maintain law and order. These interventions by the government have cost, leading to increase in public expenditure in the economy. (Ogba Likita, 1999).

1.5 Empirical Review

A number of researches have examined the impact of public expenditures on the economic growth in developed and developing countries like Jordan. The results varied from one research to another.

Abu Al-Foul and Al-Khazali (2003) using data from the Jordanian economy, they conducted a causality test of the Wagner's law which states that there is a relationship between the growth in government expenditures and the economic growth. They found that the growth in the economy granger causes the growth in the government sector. Thus, the Wagner's law applies to the case of Jordan. Using co integration technique and the VAR model, the study suggests that there is auni-directional relationship between the economic growth and the growth of the government expenditures. Bose et al. (2003) examined the growth effects of government expenditure for a panel of thirty developing countries over the decades of the 1970s and 1980s, with a particular focus on sectorial expenditures. They found that the share of government capital expenditure in GDP is positively and significantly correlated with economic growth, but current expenditure is insignificant. Secondly, at the sectorial level, government investment and total expenditures in education are the only outlays that are significantly associated with growth once the budget constraint and omitted variables are taken into consideration. Fanand et al. (2004)

estimated effects of different types of government expenditure on agricultural growth and rural poverty in Uganda. The results revealed that government spending on agricultural research and extension improved agricultural production substantially. Government spending on rural roads also had substantial marginal impact on rural poverty reduction. Educations effects rank after agricultural research and extension, and roads. Government spending on health did not show a large impact on growth in agricultural productivity or a reduction in rural poverty, but in part because of difficulties in measuring some of the impacts of this type of investment. Kuhar et al. (2005) evaluated impacts of public expenditure on the economic performance of the region Peripheral Slovenia by constructing a regional Input-Output model in the present (2004) and the following (2007) financial perspective. Results showed that the analyzed funds can stimulate a notable economic growth of the Peripheral Slovenia especially in the following financial perspective. However; comparisons of the output growth at the national level reveal likely lagging of the region. This means that the anticipated increase of regional development disparities in Slovenia would continue in the future. Loizides and Vamvoukas (2005) soak to examine if the relative size of government (measured as the share of total expenditure in GNP can be determined to Granger cause the rate of economic growth, or if the rate of economic growth can be determined to Granger cause the relative size of government. Using data on Greece, UK and Ireland, the analysis showed that: 1) government size Granger causes economic growth in all countries of the sample in the short run and in the long run for Ireland and the UK; 2) economic growth Granger causes increases in the relative size of government in Greece, and, when inflation is included, in the UK. Vuale and Suruga (2005) concerned the interaction effect of FDI and public expenditure on economic growth rate, they found there is evidence that excessive spending in public expenditures can hinder the beneficial impact of FDI, they examined also some other potential relationships between FDI and public expenditure and proposed that more efforts should be contributed in building a theoretical model which presents the interrelationship between these factors which contribute in determining the long-term economic growth rate. Abu Tayeh (2009) tried to analyze the factors that affect the Jordanian total government expenditures. This study also employs a specific methodology to assess the natural of the relationship between Jordanian public spending and its determinants. A main result of this research is that population, unemployment and inflation rates are significantly related to the public expenditures. Alexiou (2009) found that four out of the five variables used in the estimation (government spending on capital formation, development assistance, private investment and trade-openness) all have positive and significant effect on economic growth. Population growth in contrast, is found to be statistically insignificant. Al-Zeaud (2009) examined the dynamic import of fiscal policy on the Jordanian economy over the period 1992–2009, using the vector auto regressive (VAR) model, the results showed that one positive structural shock in exports and government spending by % (or Jordanian dinar) will have positively a significant on real gross domestic product (GDP) in the medium term and long term, also shock in government spending and export result in inflationary pressure in the short term and term. Boustan (2009) found that some investments in education raise growth, and a positive growth effect of exogenous shocks to investments in four-year college education, for all U.S states. But he didn't find that exogenous shocks to investment in two-year college education increase growth. He found that exogenous shocks to research-type education have positive growth effects only in states fairly close to the technological frontier. Abu and Abdullah (2010) investigated the relationship between government expenditure and economic growth in Nigeria by using disaggregated analysis in an attempt to unravel the impact of government expenditure on economic growth. Their results reveal that government total capital expenditure, total recurrent expenditure and Education have negative effect on economic growth. On the contrary, government expenditure on transport, communication and health result in an increase in economic growth. Jafari, Nademi and Zoberi (2010) apply a two-sector production function developed by ram (1986) to estimate the threshold regression model for Islamic countries, regarding the effect of government size on economic growth. The ratio of final government consumption on GDP is used to find out the threshold points. Their empirical results indicate that there is a nonlinear relationship between government size and economic growth in the selected Islamic countries under consideration. Abu Tayeh and Mustafa (2011) their paper aimed at analyzing the factors that affect the Jordanian total government expenditures. They also employed a specific methodology to assess the nature of the relationship between Jordanian public spending and its determinants. A main result of this paper is that population, unemployment and inflation rates are significantly related to the public expenditures. Dauda (2011) examined the effect of government educational spending and macroeconomic uncertainty on schooling outcomes in Nigeria. The study found that public educational spending impacts positively on schooling outcome while macroeconomic instability impacts negatively. Yildirim et al. (2011) studied the effect of government expenditures on economic growth as one of the key issues in economic literature. He performed the causality analysis proposed by Toda and Yamamoto (1995) in order to explore causal relationship between public education expenditures and economic growth in Turkey over the period

1973–2009. The empirical results showed that the relationship between government expenditures and growth is not in the form of bi-directional causation as causality runs only from economic growth to educational spending but not expenditures on education to economic growth. Nworji et al. (2012), examined the effect of public expenditure on economic in Nigeria for the period 1970–2009. Results of the analysis showed that capital and recurrent expenditure on economic services had insignificant negative effect on economic growth during the study period. Also, capital expenditure on transfers had insignificant positive effect on growth. But capital and recurrent expenditures on social and community services and recurrent expenditure on transfers had significant positive effect on economic growth. Olabisi (2012) explored the relationship between the composition of public expenditure and economic growth in Nigeria. He found that expenditure on education has failed to enhance economic growth due to the high rate of rent seeking in the country as well as the growing rate of unemployment. They also noted that expenditure on health and agriculture should be encouraged due to their positive contributions to growth. Patricia (2013) investigated the effects of public expenditure in education on economic growth in Nigeria over a period from 1977 to 2012, with particular focus on disaggregated and sectorial expenditures analysis. They found that Total Expenditure on Education is highly and statistically significant and have positive relationship on economic growth in Nigeria in the long run.

This study improves on some of the existing studies, in that it investigates the partial and joint effects of public expenditure on economic growth in Jordan using certain disaggregated components of public expenditure. It also contributes to the existing literature on the long run impact of public expenditure on economic growth in Jordan. However, the study excludes administrative expenditure in that it is included in current expenditures and the other nonproductive expenses.

1.6 Jordan's Economy

Jordan's economy is among the smallest in the Middle East, with insufficient supplies of water, oil, and other natural resources underlying the government's heavy reliance on foreign assistance. Other economic challenges for the government include chronic high rates of poverty, unemployment, inflation, and a large budget deficit. Since assuming the throne in 1999, King ABDALLAH has implemented significant economic reforms, such as opening the trade regime, privatizing state-owned companies, and eliminating some fuel subsidies, which in the last decade spurred economic growth by attracting foreign investment and creating some jobs. The global economic slowdown and regional turmoil, however, have depressed Jordan's GDP growth, impacting export-oriented sectors, construction, and tourism. In 2011 and 2012, the government approved two economic relief packages and a budgetary supplement, meant to improve the living conditions for the middle and poor classes. Jordan's finances have also been strained by a series of natural gas pipeline attacks in Egypt, causing Jordan to substitute more expensive diesel imports, primarily from Saudi Arabia, to generate electricity. Jordan is currently exploring nuclear power generation in addition to the exploitation of abundant oil shale reserves and renewable technologies to forestall energy shortfalls. In 2012, to correct budgetary and balance of payments imbalances, Jordan entered into a $2.1 billion, multiple years International Monetary Fund Stand-By Arrangement. Jordan's financial sector has been relatively isolated from the international financial crisis because of its limited exposure to overseas capital markets. In 2013, Jordan depended heavily on foreign assistance to finance the budget deficit, as the influx of about 600,000 Syrian refugees put additional pressure on expenditures (indexmundi).

1.7 Research Hypotheses

This research is based on two main hypotheses:

Hypothesis one:

$H_0$1: Current public expenditure has no significant impact on economic growth.

And it is branching off sub- hypotheses as follows:

1). Current public expenditure on education has no significant impact on economic growth.

2). Current public expenditure on health has no significant impact on economic growth.

3). Current public expenditure on economic affairs has no significant impact on economic growth.

4). Current public expenditure on housing and community facilities has no significant impact on economic growth.

Hypothesis two:

$H_0$2: Capital public expenditure has no significant impact on economic growth.

And we branch off the following sub- hypotheses:

1). Capital public expenditure on education has no significant impact on economic growth.

2). Capital public expenditure on health has no significant impact on economic growth.

3). Capital public expenditure on economic affairs has no significant impact on economic growth.

4). Capital public expenditure on housing and community facilities has no significant impact on economic growth.

1.8 Research Design

The research is organized as follows: Part one presents the introduction and an extensive review of literature on the impact of public expenditures on economic growth. Part two spells out the methodological approaches used in this research. Where part three focuses on the analysis of the research hypotheses, and to show the contribution of research results in the provision of a new addition to previous studies. Lastly, part four suggests the significance of these results for decision makers in Jordan, and the proposed recommendations by the researcher.

2. Method

2.1 Data

This research attempts to examine the impact of public expenditures on economic growth in Jordan during the period (1993–2013) using for this purpose statistical techniques: sources of data: the study is based on the annual reports of central bank of Jordan, General budget department, Department of Statistics.

2.2 Model Specification

The following two models represent the impact of public expenditures on the economic growth, as follows:

$$Ln\ RGDP = a0 + Ln\ a1CRL + Ln\ a2CRH + Ln\ a3CRE + Ln\ a4CRS \quad (1)$$

$$Ln\ RGDP = b0 + Ln\ b1CAL + Ln\ b2CAH + Ln\ b3CAE + Ln\ b4CAS \quad (2)$$

The model number (1) measures the impact of the current expenditures on education, health, economic affairs, and housing and community facilities (CRL, CRH, CRE and CRS) respectively, on economic growth (real GDP). By calculating the Ln of these variables.

The 2nd model measures the impact of the capital expenditures on education, health, economic affairs, and housing and community facilities (CAL, CAH, CAE and CAS) respectively, on economic growth (real GDP). By calculating the Ln of these variables. Where (a0, a1, a2, a3, a4) coefficients of the components of current public expenditures, and (b0, b1, b2, b3, b4) coefficients of the components of capital public expenditures, which measure the impact of the respective components of public expenditures on economic growth.

2.3 Research Variables Definition

Table 1. Variables definition

variables symbols	Variables explanations	Measurement unit
RGDP	Real GDP	Ln RGDP
CRL	current expenditure on education	Ln CRL
CRH	current expenditure on health	Ln CRH
CRE	current expenditure on economic affairs	Ln CRE
CRS	current expenditure on housing and community facilities	Ln CRS
ao,a1,a2,a3,a4	1st model coefficients	
CAL	capital spending on education	Ln CAL
CAH	capital spending on health	Ln CAH
CAE	capital expenditure on economic affairs	Ln CAE
CAS	capital spending on housing and social facilities	Ln CAS
bo,b1,b2,b3,b4	2nd model coefficients	

Source: Author computation.

Where:

RGDP: Represent the Jordanian real gross domestic product during the period (1993–2013).

CRL: Represent current spending on education which includes expenses on pre- primary and primary education,

secondary education, higher education, education without a specified level, assistance services for education.

CRH: Represent current spending on health services, which includes expenses on health products and medical devices and equipment, Outpatient services, Hospital services, Public health services, Research and development in the health field, Public health affairs classified elsewhere.

CRE: Represent current spending on economic affairs which includes expenses on economic & business affairs and public employment, agriculture, forestry, fishing and hunting, fuel and energy, mining, manufacturing and construction, transportation, communications, other industries, economic affairs classified elsewhere.

CRS: Represent current spending on current expenditure on housing and community facilities, which include expenses on community development, water supply, housing and community facilities not classified elsewhere.

CAL: Represent capital spending on education which includes expenses on pre- primary and primary education, secondary education, higher education, education without a specified level, assistance services for education.

CAH: Represent capital spending on health services, which includes expenses on health products and medical devices and equipment, Outpatient services, Hospital services, Public health services, Research and development in the health field, Public health affairs classified elsewhere.

CAE: Represent capital spending on economic affairs which includes expenses on economic & business affairs and public employment, agriculture, forestry, fishing and hunting, fuel and energy, mining, manufacturing and construction, transportation, communications, other industries, economic affairs classified elsewhere.

CAS: Represent capital spending on current expenditure on housing and community facilities, which includes expenses on community development, water supply, housing and community facilities not classified elsewhere.

2.4 Data Analysis

This research applies the descriptive and econometrics analysis approach in examining the impact of public expenditures on economic growth in Jordan during the time period (1993–2013) , and so that we use the multiple regression method, which is being estimated by the least squares method (OLS), through applying the statistical program (E -Views) on the time series data relating to components of public expenditures and real GDP during the period of the study, from the annual accounts issued by the General Budget Department, and the Department of Statistics, and the relevant previous studies conducted on Jordan and other countries around the world. Where the research tries to determine the partial and joint impact of public expenditures on economic growth in Jordan.

2.5 Percentage Distribution of Current and Capital Expenditures

As shown in the table No. (2) the percentage share of the current expenses components, (education, health, economic affairs, housing and community facilities) which form (98.89%) of the total current expenditures during the study period, means that most of the current functional expenditures dedicated to be spent on these main four components. The current expenditure on education is (80.44%), followed by the current expenditure on health forms (13.71%), then the current expenditure on economic affairs by (2.14%), and finally the current expenditure on housing and community facilities by (0.61%)of the total current expenditures.

Table 2. Percentage distribution of current expenditures

Year	Total current exp.	Current exp. %	Education %	Health %	Economic %	Housing %
1993	1044.29	0.7813	0.1208	0.0550	0.0410	0.0092
1994	1115.16	0.7786	0.1373	0.0083	0.0425	0.0098
1995	1220.44	0.7604	0.1440	0.0100	0.0417	0.0098
1996	1296.63	0.7598	0.1491	0.0099	0.0177	0.0097
1997	1438.00	0.8122	0.1418	0.0083	0.0158	0.0090
1998	1620.53	0.7873	0.1267	0.0077	0.0145	0.0084
1999	1643.10	0.8056	0.1595	0.0298	0.0196	0.0037
2000	1851.30	0.8465	0.1490	0.0215	0.0199	0.0035
2001	1851.30	0.8209	0.1560	0.0297	0.0256	0.0037
2002	1899.90	0.7929	0.1624	0.0167	0.0232	0.0040
2003	2163.70	0.7701	0.1543	0.0111	0.0176	0.0044
2004	2377.80	0.7476	0.1497	0.0307	0.0189	0.0013
2005	2908.00	0.8217	0.1320	0.0236	0.0158	0.0010
2006	3118.10	0.7970	0.1318	0.0326	0.0151	0.0011

2007	3743.90	0.8163	0.1302	0.0294	0.0129	0.0010
2008	4473.40	0.8235	0.1137	0.0183	0.0148	0.0038
2009	4586.60	0.7605	0.1131	0.0232	0.0171	0.0038
2010	4746.60	0.8316	0.1215	0.0133	0.0220	0.0195
2011	5739.50	0.8445	0.1192	0.0143	0.0193	0.0160
2012	6202.80	0.9018	0.1263	0.0082	0.0173	0.0028
2013	6210.10	0.8329	0.1416	0.0164	0.0180	0.0031
Average		0.8044	0.1371	0.0199	0.0214	0.0061
Percentage of 4 sectors		0.9889				

Source: Author computation.

And as shown in the table No. (3). The percentages share of capital public expenditure on education, health, economic affairs, housing and community facilities form (67.56%) of the total capital expenditures during the years of the study, which is acceptable to some extent, but when compared to the percentage share of current expenditures which account for (98.89%), seems low. And the percentages share of the components of capital public expenditure, as follows: on education is (7.66%) represents the lowest percentage among the four components, and on health is (10.29%), as well as spending on economic Affairs won the highest rate which reached (33.36%), and finally spending on housing and community facilities reached (16.25%) of the total capital expenditures.

Table 3. Percentage distribution of capital expenditures

Year	**Total capital exp.**	**Education %**	**Health %**	**Economic. %**	**Housing %**
1993	292.29	0.0549	0.0473	0.4592	0.1858
1994	317.05	0.0292	0.0371	0.4795	0.2266
1995	384.50	0.0317	0.0360	0.4201	0.2106
1996	410.00	0.0313	0.0434	0.4392	0.2079
1997	332.48	0.0357	0.0772	0.2920	0.2413
1998	437.68	0.0286	0.0690	0.2444	0.1622
1999	396.40	0.1234	0.1163	0.2460	0.2896
2000	335.80	0.1185	0.1176	0.2513	0.2162
2001	403.80	0.1362	0.1206	0.1914	0.1751
2002	496.30	0.0639	0.1068	0.1783	0.1352
2003	646.10	0.0373	0.0814	0.1501	0.1076
2004	802.70	0.0909	0.0771	0.2975	0.0348
2005	630.90	0.1086	0.0802	0.3761	0.0338
2006	794.10	0.1281	0.1395	0.3517	0.0307
2007	842.60	0.1305	0.1373	0.3265	0.0395
2008	958.50	0.0854	0.1451	0.3820	0.1584
2009	1444.50	0.0737	0.1603	0.3283	0.1898
2010	961.40	0.0657	0.1536	0.3650	0.1756
2011	1057.10	0.0777	0.1447	0.3879	0.1515
2012	675.40	0.0751	0.1538	0.4942	0.2233
2013	1245.60	0.0816	0.1183	0.3449	0.2182
Average	0.0065	0.0766	0.1029	0.3336	0.1625

Source: Author computation.

2.6 Statistical Analysis and Interpretation

- Unit Root Test Results (Model No. 1)

Stationary of the expletory variables and dependent variable for the model number 1, (Ln RGDP) was tested using Augmented Dickey Fuller (ADF) test. Table (4) views the results which indicate the rejection of the unit root null hypothesis of the stationary of the Ln of (CRL, CRH, CRE, CRS) and Ln RGDP at the first difference.

Table 4. Unit stationary test of current expenditures variables

Variables	ADF Statistics	P- Value	Order of Integration
Ln RGDP	-4.180356	0.0048	I (1)
Ln CRL	-4.815919	0.0013	I (1)
Ln CRH	-4.713782	0.0016	I (1)
Ln CRE	-3.581716	0.0182	I (1)
Ln CRS	-3.848775	0.0115	I (1)

Source: Author computation from computer output.

- Unit Root Test Results (Model No. 2)

Stationary of the expletory variables and dependent variable for the model number 2, (Ln RGDP) was tested using Augmented Dickey Fuller (ADF) test. Table (5) views the results which indicate that the rejection of the unit root null hypothesis of stationary of the Ln of (CAL, CAH, CAE, CAS) and Ln RGDP at the first difference.

Table 5. Unit stationary test of capital expenditures variables

Variables	ADF Statistics	P- Value	Order of Integration
Ln RGDP	-6.463527	0.0001	I (1)
Ln CAL	-3.255322	0.0366	I (1)
Ln CAH	-5.085001	0.0009	I (1)
Ln CAE	-8.44948	0.0000	I (1)
Ln CAS	-5.046358	0.0009	I (1)

Source: Author computation from computer output.

3. Results

This research aims at examining the impact of the public expenditures on economic growth in Jordan during the time period (1993–2013). On average, Jordan's public current expenditure exceeded the public capital expenditure during the study period (1993–2013). This is considered preposterous, where Jordan as a developing country should spend more on capital structure to increase the growth rate of its economy.

The researcher found that there is a statistically significant impact of the current expenses paid on health, economic affairs, and housing and community facilities and of the capital expenditures on health and economic affairs on economic growth in Jordan, and there is no statistically significant impact of the current expenses on education and of the capital expenditures on education, housing and community facilities on economic growth in Jordan.

This is contrary to the of Akpan's (2005) submission of no significant relationship between economic growth and most of the components of government expenditure and Olopade and Olepade (2010) who found that no significant relationship between most of the components of expenditure and economic growth, but in agreement with Ogiogio (1995) who submitted that current expenditure exacted more significant effect than capital expenditure, and Abu Al-Foul and Al-Khazali (2003), who found that the growth in the economy granger causes the growth in the government sector in Jordan and with Dandan (1011) who found that the government expenditure at the aggregate level has positive impact on the growth of GDP which is compatible with the Keynesian's theory.

The joint effect of these components of (current and capital) public expenditures on economic growth is statistically significant as indicated by the computed F-Statistic and its probability. Therefore, the study submits that there is an impact of public expenditures on economic growth, and that the current expenditure exerts significant impact on the capital expenditure. Result of the analysis also shows that the explanatory variables included in the 1st model explain about 98%, and in the 2nd model explain about 93% variations in the explained variable. This high explanatory power shows that the two models are a good fit, and that these components of public expenditures are important determinants of economic growth in Jordan.

4. Discussions

The study further concludes that the components of public expenditures considered in this study are important variables in explaining economic growth in Jordan. Based on findings from the empirical analysis, the study

offers the following recommendations, among others:

Capital and current expenditures on economic affairs should be directed mainly to productive economic activities. This will stimulate activities in the economic sectors and, perhaps, reverse the negative effect of them on economic growth, and the proportion of total public expenditures that goes into funding some components of capital and current expenditure should be increased since these components exert significant positive effect on economic.

These results insure that the need to develop awareness among different social groups related economic sectors and activities to encourage their involvement in the available opportunities.

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Appendix A

Functional classification summary of public expenditures classified by departments and functional groups

Zip Code	Functional Section	Functional Code	Functional Group	Current Expenses	Capital Expenses	Total Expenses
704	Economic Affairs	7041	Economic & Business affairs and public employment			
		7042	Agriculture , forestry, fishing and hunting			
		7043	Fuel and Energy			
		7044	mining, manufacturing and construction			
		7045	Transportation			
		7046	Communications			
		7047	Other Industries			
		7048	Economic Affairs classified elsewhere			
706	Housing and community facilities	7062	Community Development			
		7063	Water supply			
		7066	Housing and community facilities not classified elsewhere			
707	Health	7071	health products and medical devices and equipment			
		7072	Outpatient services			
		7073	Hospital services			
		7074	Public health services			
		7075	Research and development in the health field			
		7076	Public health affairs classified elsewhere			
709	Education	7091	Education pre- primary and primary education			
		7092	Secondary education			
		7094	Higher education			
		7095	Education without a specified level			
		7096	Assistance services for education			

Source: Department of the general budget, a draft of Jordanian budget for the year 2014.