

# The Impact of Public Expenditure and Public Debt on Taxes: A Case Study of Jordan

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## Abstract

The study aimed to estimate the impact of capital expenditure, current expenditure and external and internal public debt on taxes in Jordan during the period 2001–2014. It adopted the multiple linear regression method by E-views program to study the impact of the independent variables (represented by capital expenditure, current expenditure, external and internal public debt) on the dependent variable (taxes). The statistical analysis showed a statistically significant, positive impact of both the capital expenditure and the current expenditure on taxes. The study also found a statistically significant, positive relationship between external and internal public debt on taxes in Jordan. The study presented a number of recommendations, most importantly for the public sector, taking into account the capital expenditure, the current expenditure and the external and internal public debt, which directly affect the tax increases in Jordan. There is a need to use non-traditional alternatives to finance capital expenditures instead of external public debt and internal sources, such as Sukuk Murabaha Islamic participation, to finance capital expenditure for the Government to build schools, hospitals and other government services. The Government should take into account the current expenditure of tax revenues, while capital expenditure should be covered by non-traditional means.

**Keywords:** Taxes, Expenditure, Capital expenditure, Internal public debt, External public debt, Public finance, Public revenue, Current expenditure

## 1. Introduction

The problems of public expenditure and public debt are important financial problems currently affecting underdeveloped countries, including Jordan. The State may increase the current expenditure (salaries, wages and others) and capital expenditure on other projects and debt, whether internal or external to the economic and financial role. The resulting financial legislation to increase the tax revenue to meet the public expenditure, payment of benefits and premiums for debt have become Jordan's financial phenomena of public debt and expenditure. The Government must pay attention to its economic and financial situation, so this research attempts to examine the impact of the expenditure and public debt on taxes in Jordan as an underdeveloped country that relies heavily on tax revenues.

This study will analyse the impact of external and internal public debt on taxes in Jordan and the impact of current and capital expenditure on taxes in Jordan.

### 1.1 The Problem of the Study

The problem of the study is the increase in public expenditure and the accumulation of public debt in the country. Therefore, the study aims at determining the effect of public expenditure and public debt on taxes by formulating the problem of the study with the following questions

- 1- What is the impact of capital expenditure on taxes?
- 2- What is the impact of current expenditure on taxes ?.
- 3- What is the effect of internal public debt on taxes?.
- 4- What is the impact of external public debt on taxes?

### 1.2 The Importance of the Study

The importance of the study follows the increased attention paid to public expenditure and public debt in underdeveloped nations (including Jordan), which have a significant impact on financial policies. Thus, many modern studies focus on the effect of public debt and expenditure on economic growth. This study investigates the impact of expenditure and public debt on taxes and is one of the first studies, to the researcher's knowledge, to illustrate the impact of expenditure and tax debt in Jordan and the financial interest of decision makers in public spending, public debt and fiscal policy making.

### 1.3 The Objectives of the Study

the objectives of the study stems from the independent variables whose impact on taxes in Jordan .the study will analyze as follows

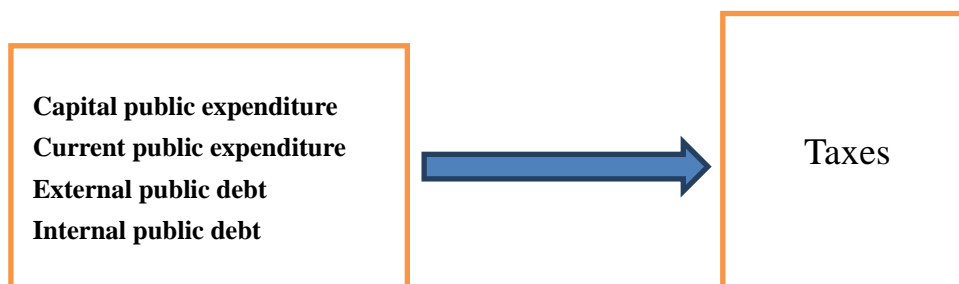
- 1- Clarification of the concept and the development of capital public expenditure and current public expenditure in Jordan.
- 2- Clarification of the concept and the development of internal and external public debt in Jordan.
- 3- Clarification of the concept and development of taxation in Jordan.
- 4- Estimate of the impact of the capital public expenditure on taxes .
- 5- Estimate of the impact of the current public expenditure on taxes
- 6- Estimate of the impact of the external public debt on taxes
- 7- Estimate of the impact of the internal public debt on taxes

### 1.4 The Study Hypotheses

The study is based on the following assumptions:

- 1- There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between Capital public expenditure and taxes.
- 2- There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between current public expenditure and taxes.
- 3- There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between external public debt and taxes.
- 4- There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between internal public debt and taxes.

### 1.5 Study Model



### 1.6 The Study Variables

Independent variables ( capital public expenditure, current public expenditure, external public debt, internal public debt).

Dependent variable: tax revenue in Jordan

### 1.7 The Study Design and Statistical Analysis

The study Will rely on multiple linear regression method and use (E-views) program, to study the impact of the independent variables on taxes, where the following equation was used:

$$TX = f(KE, CE ,ED,ID)$$

Where:

TX: Tax revenue/ Million Jordanian Dinars

KE: Capital Expenditure// Million Jordanian Dinars

CE: Current Expenditure/ Million Jordanian Dinars

ED: External Debt/ Million Jordanian Dinars

ID: Internal Debt / Million Jordanian Dinars

Accordingly, the multiple regression equation can be written according to the following formula:

$$TX = a + B1 KE + B2 CE + B3 ED + B4 ID + E$$

Where B1, B2, B3, B4 are the regression parameters for independent variables which can be through their signals determines the direction of the relationship between the independent variables and the dependent variable.

The Study Sources

- Books, periodicals and research
- Statistical bulletins issued by the Central Bank of Jordan.
- Statistical bulletins published by the Ministry of finance.

### *1.8 The Added Value of the Study and the Study Limits*

#### **1 -The added value of the study**

it is the first study – to the researcher’s knowledge – to follow the multiple linear regression method, using a program (E-views) to study the effect of the independent variables (public expenditure and public debt) on the dependent variable, tax revenue on Jordan .

#### **2- The Study limitations**

Extending the study of (2001-2014) ,case study on Jordan

### *1.9 The Methodology*

The study will gain scientific insights into modern studies and research on scientific methods based on examining different variables relating to search queries, so it will use descriptive and inductive inferences, quality curricula and syllabi as well as deductive quantitative analysis, sometimes with recourse to the historical approach.

## **2. Literature Review**

1) The study by Njoku Ray, Nwaeze Chinweoke, and Pascha, Nwaeze Okeom (2014)

The study aims to measure the impact of the Nigerian Government’s public expenditure on economic growth during the period 1992–2011 through the use of the multiple regression method. The study finds a positive impact of public expenditure on economic growth during the period of the study in Nigeria. It recommends the need to distribute public expenditure on economic growth encouraged by economic sectors such as agriculture and industry in addition to the infrastructure.

2) The study by Al-Shatti Sulieman (2014)

The study aims to measure the impact of the current capitalist and public expenditure on economic growth through the distribution of public expenditure (current and capital expenditure) on education, health, economic and social benefits and their impact on economic growth. The study examines variables of all residents, and the statistical analysis of the study shows an effect of current expenditure on health, economic and social benefits and housing in addition to the impact of capital expenditure on the health sector and economic affairs on economic growth. Meanwhile, the study finds no impact of the current expenditure on the education sector, as there is no impact of the capital expenditure on housing and social benefits on economic growth in Jordan.

3) The study by Ndifon Ojong Ejoh, Inah Bassey, Okpa and Akpeh Edung, Ogon (2016)

The study aims to describe the impact of government revenues and expenditure on economic development and includes a sample of 80 to obtain and analyse data through the SPSS program. It finds a relationship between government revenue and government expenditure and economic growth and recommends action on the stability of government revenue and distribution to the current expenditure and capital to support economic development.

#### 4) The study by Umaru, Hamidu and Musa(2013)

The study aims to measure the impact of external and internal public debt on economic growth in Nigeria during the period 1970–2010. The statistical analysis shows Stability of the study variables. The analysis also shows, through the Dickey–Fuller test, a causal link between external public debt and economic growth, while there is no causal relationship between internal public debt and economic growth. Through a regression analysis, the study finds a negative impact of external debt on economic growth but a positive impact of internal public debt on economic growth.

#### 5) The study by Krogstrup, Signe (2002)

The study aims to indicate the effects of taxation and expenditure in the European Union and discuss the impact of debt service on the types of taxes in the European Union. Through a statistical analysis, the study finds a relationship between public debt and tax; proportional debt and increased debt lead to higher taxes compared with other states that have fewer debts.

#### 6) The study by Blake, Tarick (2015)

The study aims to clarify the impact of public debt on economic growth by taking quarterly data from 1990 to 2014 to analyse the non-linear relationship between public debt and economic growth. The results show a negative relationship of internal and external public debt with economic growth.

#### 7) Muinga, Ruth Muendi (2014) The study by

The study aims to test the relationship between public expenditure and economic growth in Kenya using study data from 1970 to 2010. It takes the GDP as an indicator of growth as a dependent variable, while the other independent variables are employment, capital formation and interest paid on the debt. The study finds a negative effect of public debt and interest on debt on economic growth, while capital formation and employment have a positive impact on economic growth.

#### 8) The study by Gomez-Puig, Marta and Sosvilla-Rivero, Simon (2015)

The study aims to test the performance of public debt in the economy through data from the European Union during the period 1960 onwards. The statistical analysis shows a long-term negative effect of public debt but a positive short-term impact on the economy of the European Union.

#### 9) The study by Lora, Eduardo and Olivera, Maurico (2006)

The study aims to clarify the impact of public debt on social expenditure worldwide and in Latin America. By taking data on 50 states during the period 1985–2003, the study results indicate increasing debt with public social spending, and in Latin America there is a strong impact of debt in areas that spend more on social benefits.

#### 10) The study by Olalekan Emmanua, Obademi I (2012)

The study aims to measure the impact of external debt on economic growth using a case study of Nigeria. It finds a statistically significant negative relationship between external public debt and economic growth.

### 2.1 What Distinguishes This Study

This study differs from earlier studies in the following ways:

**First**, it is one of the few studies to be conducted in the Arab environment and the first in Jordan – to the researcher’s knowledge – to try to examine the influence of public expenditure(current and capital) and public debt (internal and external) on the total tax in Jordan.

**Second**, it is one of the few studies on the global level – to the researcher’s knowledge – to attempt to study the effect of public expenditure and public debt on the total taxes, because most studies on this topic focus on the influence of tax revenue on public expenditure and public debt. Note that there is a circular relationship between tax revenues and public expenditure and public debt.

### 2.2 The Theoretical Framework of the Study

**public expenditure, internal and external debt and tax – in addition to the concept of development in Jordan during the study period**

**First: the public expenditure concept and development in Jordan**

Public expenditure plays a prominent role in the process of economic and social development; it is an essential factor in the economic activity in Jordan. The current expenditure plays a role in increasing the domestic liquidity and thus

increases the economic activity in Jordan, and capital expenditure is necessary to build real businesses that work to increase production and employment, in addition to the basic needs of productivity and economic benefits of service problems.

The theoretical and applied literature refer to the controversy about the effects of public expenditure on the infrastructure and human resources, which are economic stimuli but may have adverse effects on the economy by raising taxes to finance that spending, damaging the economy (Husseini, Esra. 2012).

The concept of public capital involves expenditures allocated to capital formation in the community, such as the establishment of new projects (Mahaini, 2013). Meanwhile, current public expenditure consists of three main expenditures: wages and salaries spent on buying goods, services and current transfers (Saif and Njmah, 2012),

Table (1) shows that Jordan has witnessed a noticeable rise in its total expenditure from a value of (2946.7) million Jordanian dinars (MJD) and a growth rate of (6%) in (2002) to ( 5350.4) million Jordanian dinars and a growth rate of (18.7%) in (2007).

The reasons are the following:

1. The increase in current expenditure because of the increasing number of public sector workers in Jordan, which increases the salaries in current expenditures plus expenditure to support essential commodities within the current expenses, as noted in table (1): high current expenditure worth (2201.4) million Jordanian dinars and a growth rate of (1%) in (2002) to (3945.6) million with a growth rate of (10%) in (2007).
2. The Government's expenditure on infrastructure, capital projects and other service projects, leading to increased capital expenditure, as noted in table 1: high-value capital expenditure of (745.3) million Jordanian dinars and a growth rate of ( 22%) in( 2002) rising to (1404.8)MJD with a growth rate of (18.7%) in (2007).

However, the overall expenditure growth rate declined in Jordan to( -3%) in (2010) because of political followers' aim to streamline and adjust overhead capitalism downwards. The growth rate during the same year was (-26.5), with the growth rate of recurrent expenditure almost constant in 2010 in comparison with (2011).

The last study notes the return of the total public expenditure to a rise to (8718.4) MJD and (9524.2) MJD with a growth rate of( 2.9) and (9.2) in (2013) and (2014), respectively. It also appears from figure 1 that evolution occurred in the total overheads during the study period.

This is still the focus of attention among people who are interested in the overheads of financial and political decision makers, researchers and others to determine public expenditure and taxes and for the Government to identify public expenditure in the budget as an initial basis for public budgeting before selecting the needed revenue. An increase in tax revenue is required to cover the current public expenditure and capitalist public expenditure in Jordan.

Table 1. the development of public expenditure in Jordan in million dinars during the study period (2001-2014).

Years 1	current expenditure 2	capital expenditure 3	total expenditure 4= 2+3	growth rate of Current expenditure 5 %	growth rate of Capital expenditure 6 %	growth rate total public expenditure 7 %	ratio of current expenditure to total expenditure 8 %	ratio of capital expenditure to total expenditure. 9 %
2001	2174.8	611.5	2786.3	-	-		78	22
2002	2201.4	745.3	2946.7	1	22	6	75	25
2003	2509.6	951.8	3461.4	14	2.7	17	73	27
2004	2780	1115.8	3895.8	11	17	12	71	29
2005	3320.4	984.5	4304.9	19	-11.7	10	77	23
2006	3593.8	1183.3	4777.1	8	22	11	75	25
2007	3945.6	1404.8	5350.4	10	18.7	12	74	26
2008	5358.54	1382.9	6741.44	3.5	-1.5	25	80	20
2009	5623.9	1863.1	7487	5	34.7	11	75	25
2010	5891.1	1369.2	7260.3	4.7	-26.5	-3	82	18
2011	7024.7	1341.5	8366.2	19	-2	15	84	16
2012	7569.2	903.3	8472.5	0.07	-32	1	89	11
2013	7449.2	1269.2	8718.4	-0.015	40.5	3	86	14
2014	8096.5	1427.7	9524.2	0.080	0.12	9	85	15

Source: General government financial bulletin, directorate of studies and economic policies, different numbers.

Table: prepared by the researcher.

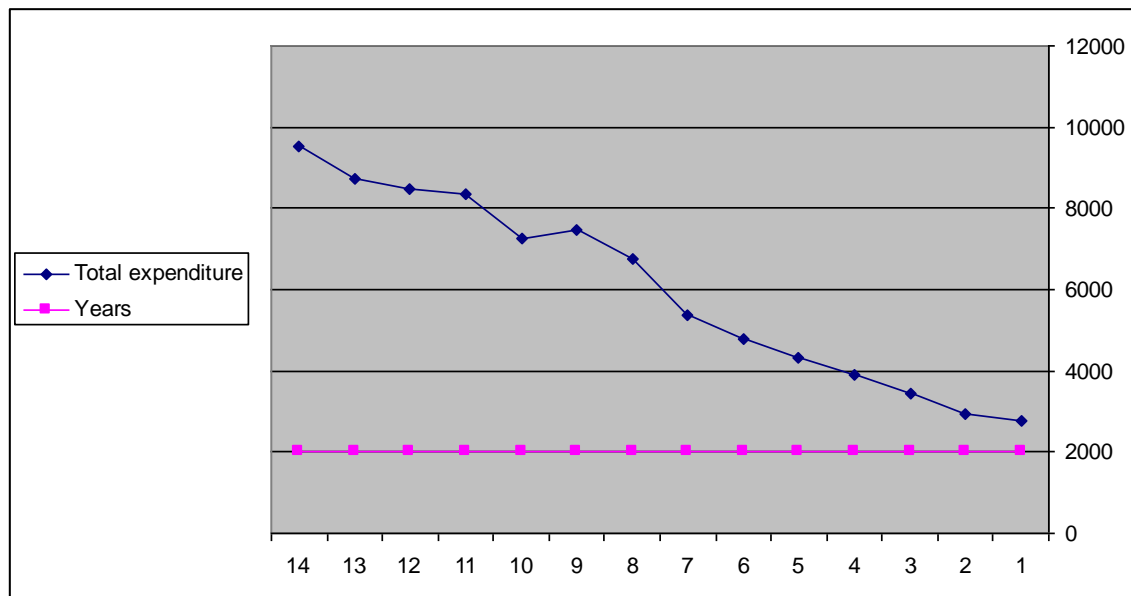


Figure 1. the development of total public expenditure in Jordan during the study period (2001 – 2014)

Source prepared by the researcher according to the table data (1), Colum number(4)

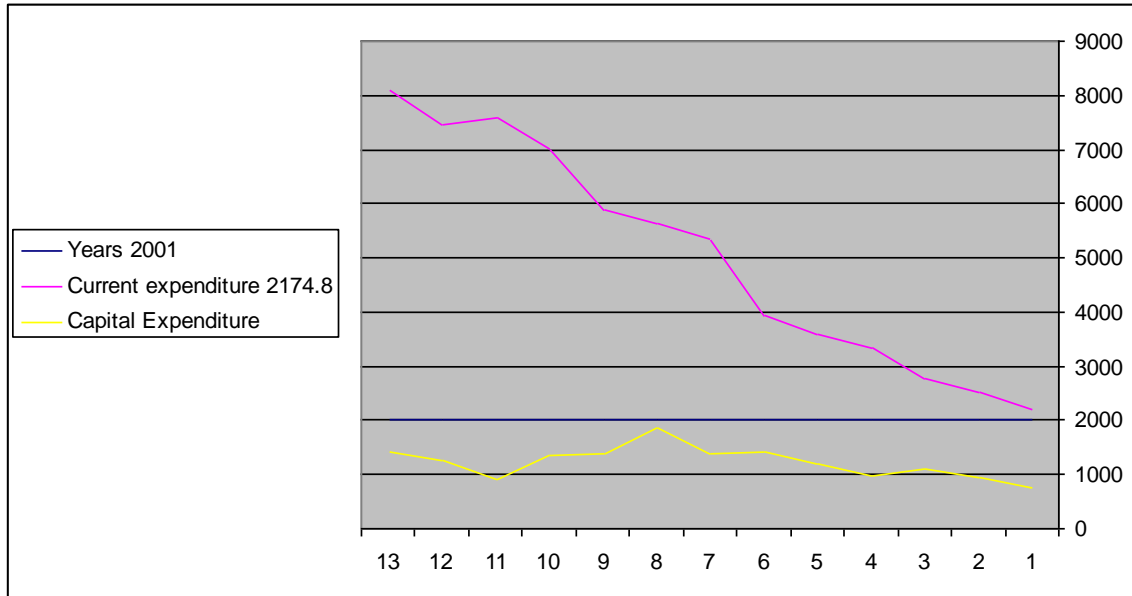


Figure 2. the development of current expenditure and capital expenditure in Jordan during the study period (2001 – 2014)

Source: prepared by the researcher based on the data of table (1) Colum number (2 and 3).

Second: public debt: concept and development in Jordan

The concept of external public debt represents drawdowns from foreign loans minus premiums paid (Central Bank of Jordan, Monthly Statistical Bulletin, 2016), while the existing balance of the internal public debt represents the Central Government’s domestic debt (under budget and separate budgets) and incorporates the existing balance of bonds and government permission in addition to the existing balance of direct credit facilities obtained by the Government from banking and non-banking sources (CBJ, Monthly Statistical Bulletin, 2016).

This refers to the accumulation of debt in some countries leading to increased taxes to pay debt premiums and benefits, as it leads to increased risks relating to the State.(Alwneh, Ateyah, 2012).

From table (2) it is apparent that Jordan witnessed rising public debt from (7006.4) MJD with a growth rate of (10%) in( 2002) to (8948.3) MJD with a growth rate of (9.8%) in 2007. The reasons are:

1. The increase in the external public debt of Jordan leveraged to support the budget deficit.
2. Correcting the imbalances in the balance of payments.

Note the continued growth of public debt in Jordan until it reached a value of (10 955) MJD, the highest growth rate during the study period (16.6%) occurring in 2009 to support the Jordanian economic growth, which was affected by the financial crisis. This shows that the public debt growth rate continued to rise and fall considerably (22651.1) million MJD with a growth rate of (9.5%)at the end of the study period), which also appears in figure (3).

**Internal and external public debt in Jordan**

From table (2) it can be noted that the ratio of external debt to total debt was high at the beginning of the study period, as it reached (78%) and (76% )during (2001) and (2002), respectively, but continued to decline to (35%) in (2014). This guided Jordan to reduce its dependence on external debt to increase its domestic debt, which was higher than (22%) as a proportion of the total debt in (2001 )until it reached (65%) in (2014) at the end of the study period, as shown in figure( 4).

Although the proportion of external debt is high in Jordan, with an average rate during the study period of 53%, the average ratio of debt to total debt is (47%), which requires increased revenue to cover creditors’ obligations and benefits. This is still the focus of attention of people concerned about public indebtedness among financial and political decision makers, researchers and others to determine the tax debt and the Government’s internal and external borrowing to satisfy debt payments and benefits. It is necessary to increase the tax revenue to cover the premiums and the benefits of religion in Jordan

Table 2. the Development of Jordan's public debt in (MJD)during the study period (2001-2014)

Years 1	external public debt 2	internal public debt 3	total public debt 4=2+3	ratio of external debt to total debt 5 %	ratio of internal debt to total debt 6 %	growth rate of external debt 7 %	growth rate of internal debt 8 %	growth rate of total debt 9 %
2001	2174.8	1397	6366.8	78	22	-	-	-
2002	2201.4	1656	7006.4	76	24	7.6	18	10
2003	2509.6	1815	7206.8	75	25	0.07	9	2.8
2004	2780	2082	7430.8	72	28	-0.08	14.7	3
2005	3320.4	2467	7523.7	67	33	-5	18.4	1.2
2006	3593.8	2961	8147.5	64	36	2.5	20	8
2007	3945.6	3695	8948.3	59	41	1.2	24	9.8
2008	5358.54	5754	9394.2	39	61	-30	55	4.9
2009	5623.9	7086	10955	35	65	6	23	16.6
2010	5891.1	7980	12590.8	37	63	19	12	14.9
2011	7024.7	9996	14482.8	31	69	-2.6	25	15
2012	7569.2	12678	17610.4	28	72	9.9	26	2.1
2013	7449.2	13440	20674.5	34	66	4.6	6	17
2014	8096.5	14621	22651.1	35	65	10	8.7	9.5

Source: General Government financial bulletin, Directorate of studies and economic policies, different numbers.

Table: prepared by the researcher.

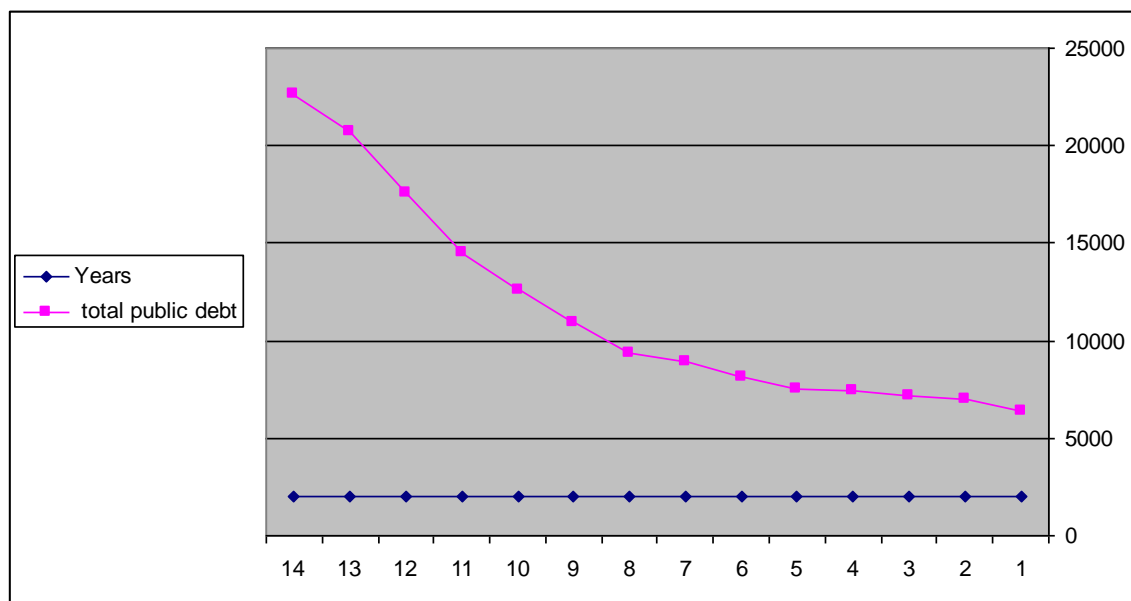


Figure 3. development of public debt in Jordan during the study period (2001-2014)

The Source: prepared by the researcher according to the table Data (2) Colum number (4)



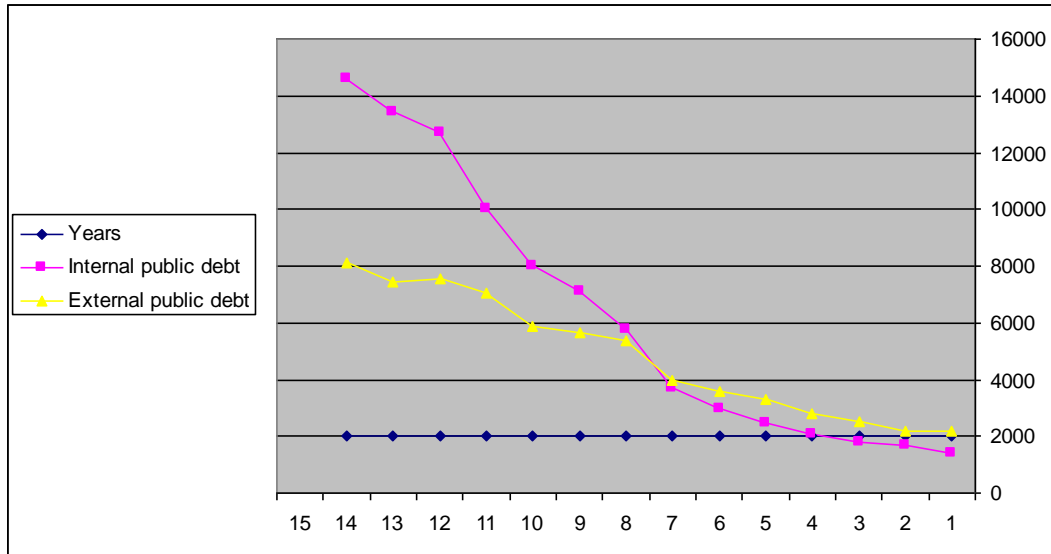


Figure 4. Development of internal and external public debt during the study period (2001-2014)

Source prepared by the researcher according to the table Data (2). Colum number (2 and 3)

Third: The concept of taxes and development of taxes in Jordan.

1-: The concept of taxes

The concept of taxes in Jordan includes all types of taxes levied and collected for the Central Government’s budget, tax knowledge, buildings, land (property tax) collected for state institutions and municipalities’ independent budgets. It should be noted here that the fines collected from the customs service do not fall within the concept of taxes but are classified as non-income tax, while taxes on goods and services include all taxes on production or extraction or sale or transfer of ownership and the lease or supply of goods and services, as well as other additional taxes on the amount of electricity consumed, land transactions and size and driving licenses and other cars (Ministry of Finance, 2016).

2- development of taxes in Jordan

Note from table 3 that taxes in Jordan have witnessed a remarkable development from 1050.2 MJD with a growth rate of 1.2% in 2002 to 4037.1 MJD with growth of 7.4% in 2014. The highest growth rate of taxation that Jordan experienced during the study period was 30.8% in 2004, as shown in figure 5, which raised taxes on many goods and services to aid the public budget deficit and block the financial debt and interest commitments of Jordan.

Table 3. the development of taxation in Jordan during the study period (2001-2014)

years	Tax revenue (MJD)**	The growth rate of tax
2001	1036.8	-
2002	1050.2	1.2
2003	1134.7	8
2004	1484.6	30.8
2005	1829.2	23
2006	2204.7	20.5
2007	2541.1	15.2
2008	2851.1	12.2
2009	2958.5	3.7
2010	3071.4	3.8
2011	3153.7	2.6
2012	3447.7	9.3
2013	3756.4	8.9
2014	4037.1	7.4

Source: General Government financial bulletin, Directorate of studies and economic policies, different numbers  
 \*\* includes taxes on income , profits, the general sales tax and taxes on foreign trade.

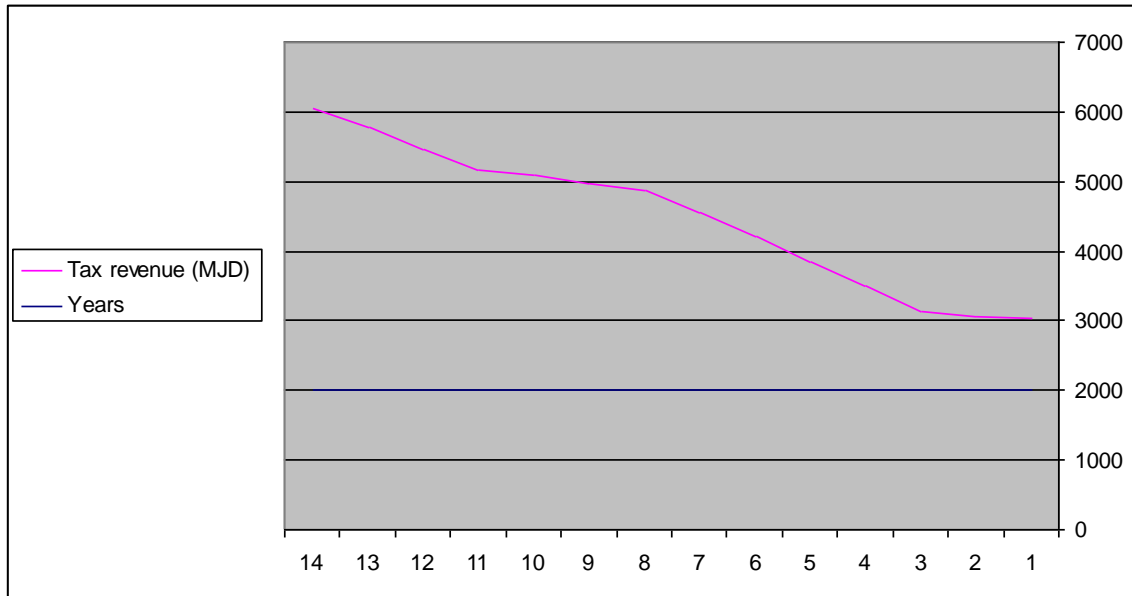


Figure 5. the development of taxes in Jordan during the Study years (2001-2004)

Source prepared by the researcher according to the table Data (4).

**The statistical analysis of the study**

The assessment and evaluation of the regression model were based on the multiple linear regression method for estimating the effect of the independent variables on the dependent variable (TX) in Jordan, using the E-views program. The results of the assessment are as follows.

**First: the estimation of regression model**

Table 4. results of estimating linear multiple regression model.

Dependent Variable: TX

Variable	Coefficient	t-Statistic	Prob
KE	1.168232	3.374640	0.0097
Δ (CE)	1.322974	2.611506	0.0311
Δ (ED,1)	0.987373	5.143415	0.0009
Δ(ND)	0.462794	2.504727	0.0367
C	-159.9940	-0.379041	0.7145

Source : prepared by the researcher using the program .E-views.

**According to table 4, the estimate results of the regression model were as follows:**

Adjusted R-Squared: %88 R-Squared: =%92 F= 23 D.W= 1.90

From table 4 above, note that the independent variables’ parameters (capital public expenditure (KE) and external debt (ED)) are statistically significant at the 1% level. Both variables’ parameters, current expenditure (CE) and internal public debt (ND), are statistically significant at the 5% level.

$$TX = -159.9940 + 1.168232 KE + 1.322974 \Delta(CE) + 0.987373 \Delta(ED,1) + 0.462794 \Delta(ND)$$

**Second: Evaluating the regression model**

To evaluate the economic standard model, the second column of table 4 (Coefficient) contains the values of the estimated parameters, described as follows.

- The value of the constant (C) is equal to (-159.9940), a negative signal.
- The value of the capital expenditure coefficient (KE) is equal to 1.168232, a positive signal, which is consistent with the economic and financial literature.

- The value of the coefficient of current expenditure (CE) is equal to (1.322974), which is consistent with the economic and financial literature.
- The value of the external public debt coefficient (ED) is equal to 0.987373, a positive signal, which is consistent with the economic and financial literature.
- The value of the coefficient of internal public debt (ND) is equal to (0.462794), which is consistent with the economic and financial literature.

**Third: Evaluating the model according to the statistical criterion.**

The model shows the coefficient of determination (adjusted R-squared), which means that changes in the independent variables together explain about (88%) of the changes in the dependent variable. Meanwhile, the value of the F-statistic reached 28 and the prob. significance level reached 0, meaning that the model is statistically significant.

The Durbin–Watson (DW) coefficient reached (1.90), indicating that the model is appropriate and statistically significant, and it cannot be judged that there is an autocorrelation problem or systematic error

**Fourth: Testing the prediction ability of the model:**

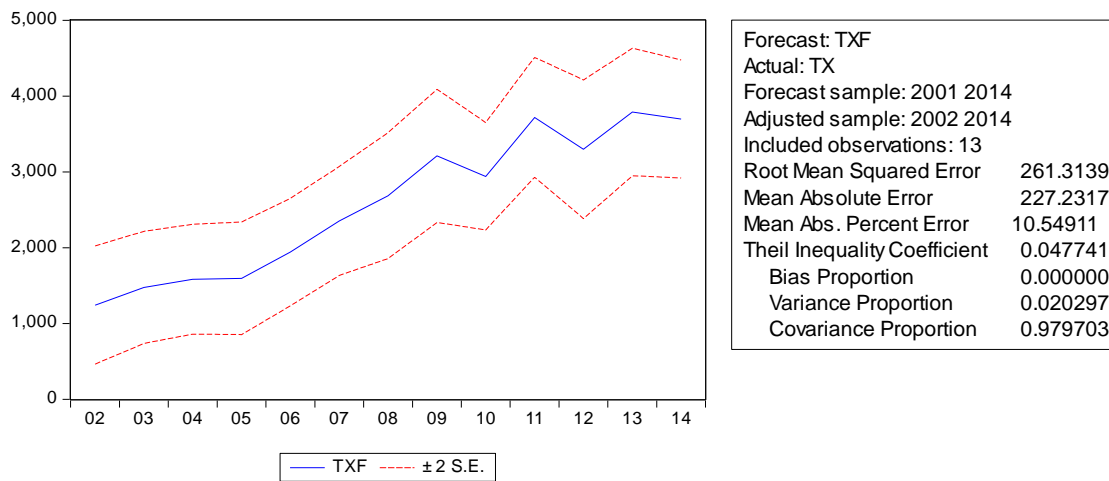


Figure 6. Testing the prediction ability of the model

Source prepared by the researcher using the program .E-views.

We can test the viability of the model and its forecasting ability for taxes in Jordan by using the dispersion factor standard (variance proportion), as shown in figure( 6).

The researcher conducted some standard tests to ensure the reliability, stability and viability (validity test) through tests, and the drawing shown below in figure 6 indicates that the values of bias (bias proportion) are zero.

The coefficient of dispersion (variance proportion) is equal to (2%), and the value of the covariance proportion is equal to( 98%), which is an indication that the error in of the random errors in the model, also indicates that the predictive ability of the model for tax in Jordan is acceptable.

**Test of the hypotheses.**

**The first hypothesis:** There is a statistically significant positive relationship at the level of  $\alpha= 0.05$  between capital public expenditure and taxes.

It is shown that the appreciation from standard to value capital expenditure (kE) is equal to (1.168232), a positive signal, which means that the relationship between the change in capital public expenditure and the change in tax is positive. This is consistent with the economic and financial literature that emphasizes a positive relationship between capital public expenditure and taxes, which means that statistically there is a positive impact of public expenditure on taxes. It also means increased capital expenditure by (100%), leading the Government to increase the amount of taxes by (1.168232). The reality of the performance during the study period (2000–2014) shows a positive relationship. The reason for this can be attributed to the rise in public expenditure on capital projects and infrastructure, such as building schools, hospitals and other government services. This leads the State to offset

expenditure by imposing more taxes to obtain revenue to cover the capital expenditure, as the country relies heavily on tax revenue.

According to the T –Test , this result is statistically significant at the ( 1%) .the confidence level for this variable is equal to(99%) which indicates the acceptance of hypothesis, Which provides There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between Capital expenditure and taxes, While the null hypothesis is rejected .

**The second hypothesis:** There is a statistically significant positive relationship at the level of ( $\alpha$ = 0.05) between current public expenditure and taxes

It is shown that the appreciation from standard to value current expenditure (CE) is equal to (1.322974), a positive signal, which means that the relationship between the change in current public expenditure and the change in tax is positive. This is consistent with the economic and financial literature that emphasizes a positive relationship between current expenditure and taxes, which means that statistically there is a positive impact of current public expenditure on taxes. It also means increased current public expenditure by (100%), leading the Government to increase the amount of taxes by (1.168232)

The reality of the performance during the study period (2000–2014) shows a positive relationship. The reason for this can be attributed to the Government’s current expenditure on salaries and support for some consumer goods, leading the State to increase the tax revenues to cover the current expenses.

According to the T –Test , this result is statistically significant at the ( 5%) .the confidence level for this variable is equal to(95%) which indicates the acceptance of the hypothesis, Which provides: There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between current expenditure and taxes, While the null hypothesis is rejected .

**The third hypothesis:** There is a statistically significant positive relationship at the level of ( $\alpha$ = 0.05) between external public debt and taxes .

It is shown that the appreciation from standard to value external debt (ED) is equal to (0.987373), a positive signal, which means that the relationship between the change in external public debt and the change in tax is positive. This is consistent with the economic and financial literature that emphasizes a positive relationship between external public debt and taxes, which means that statistically there is a positive impact of external public debt on taxes. It also means the increase of external debt on taxes by (100%), leading the Government to increase the amount of taxes by (0.987373).

The reality of the performance during the study period (2000–2014) shows a positive relationship. The reason for this is that the Government is working to increase the tax revenue and foreign debt to increase its ability to repay debt and interest on debt.

According to the T –Test , this result is statistically significant at the ( 1%) .the confidence level for this variable is equal to(99%) which indicates the acceptance of the hypothesis, Which provides: There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between of external debt and taxes, While the null hypothesis is rejected .

**The fourth hypothesis:** There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between internal public debt and taxes.

It is shown that the appreciation from standard to value internal debt (ID)) is equal to (0.462794), a positive signal, which means that the relationship between the change in internal debt and the change in tax is positive. This is consistent with the economic and financial literature that emphasizes a positive relationship between internal debt and taxes, which means that statistically there is a positive impact of internal debt on taxes. It also means the increase of internal debt on taxes by (100%), leading the Government to increase the amount of taxes by (0.462794)

The reality of the performance during the study period (2000–2014) shows a positive relationship. The reason for this is that the Government is working to increase the tax revenue and the internal public debt to increase its ability to repay debt and interest on debt.

According to the T –Test , this result is statistically significant at the (5%) . the confidence level for this variable is equal to(95%) which indicates the acceptance of the hypothesis, Which provides: There is a statistically significant positive relationship at the level of ( $\alpha$  0.05) between internal debt and taxes, While the null hypothesis is rejected.

### 3. Conclusion

The findings of this study are as follows:

- 1- There is a continuous rise in public debt in Jordan which has reached (6366.8) MJD in 2001 to (22651.1) MJD in 2014.
- 2- the average of external public debt is (53%) to total debt, while the average internal debt is (47%) to total debt during the study period
- 3- There is a continuous rise in tax revenue in Jordan which amounted to (1036.8) MJD in 2001, rising to (4037.1) MJD in 2014.
- 4- There is a positive effect statistically significant between capital expenditures and taxes. Where it was accepted, While the null hypothesis is rejected.
- 5- There is a positive effect statistically significant between current expenditures and taxes. Where it was accepted, While the null hypothesis is rejected.
- 6- There is a positive effect statistically significant between external public debt and taxes. Where it was accepted, While the null hypothesis is rejected.
- 7- There is a positive effect statistically significant between internal public debt and taxes. Where it was accepted, While the null hypothesis is rejected.

### 4. Recommendations

In the light of the results of the study, the author recommends the following:

1. The public sector should take into account current and capital public expenditures and external and internal public debt, which directly affect the tax increase in Jordan.
2. There is a need to use new tools to cover capital expenditure, such as issuing Islamic bonds, instruments of production and speculation, rather than increasing taxes.
3. It is necessary to use non-traditional alternatives to finance capital expenditure instead of external public debt, such as production instruments, participatory instruments and speculation, to finance all government capitalist expenditures for the construction of schools, hospitals and other government services.
4. The public sector should convert part of the taxes into public savings to fund investment projects that generate revenue to finance public expenditure and dispose of public debt.
5. It is necessary to find financed funds (donations and alms) to finance the current expenditure for the poor, the needy and social affairs.
6. The government should take into account the covering of the current expenditure of tax revenues, while the capital expenditure should be covered by non-traditional means.
7. It is proposed that further applied studies should be conducted at the local level to help in the derivation of new instruments to finance public expenditures rather than taxes, new tools, public debt as well as the factors affecting the tax.

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