

Determinants of Internal Debt: Evidence from Jordan

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Abstract: This study aims to examine the determinants of internal debt in Jordan over the period from (1991-2015). This subject was selected because the internal debt increased over the last 10 years about 145% while the external debt decreased about 75% as well as it considered the first one to be conducted in the context of Jordan. To achieve the aim of this study it followed a functional model which already employed earlier by Budina and Fiess, Ribeiro and Sinha. The time series Ordinary Least Squares (OLS) is used for the determinants testing purposes. The analysis revealed that there are a statistically significant negative relationship between Internal debt (INT) and the following variables: Budget Deficit (BDF), Current Expenditure (CEP) and Capital Expenditure (CAP). The study will be useful for the fiscal and monetary policy for rationalization of fiscal and monetary policies in order to reduce internal debt as well as it will be useful for monetary and financial authorities.

Key words: Internal debt, budget deficit, current expenditure, capital expenditure, inflation rate and growth rate, policies

INTRODUCTION

The main aim of this study is to examine the determinants of internal debt in Jordan over the period (1991-2015). The internal debt has been selected for the following reasons.

The internal debt increased over the past 10 years from 20.6% of GDP in 2006 to 50.5 % of GDP in 2015, i.e., the percentage of increase is about 145%. The World Bank attributed the percentage of increase in the domestic debt due to the increase in the budget deficit because of the adverse regional developments in Jordan in particular with the Syria and Iraq crises where these crises remain the largest recent shock affecting Jordan as reflected in the large refugee influx, disrupted trade routes and lower tourism inflows. The large number of Syrian refugees entering the country has had a strong impact on the country's social fabric, economy and security (Anonymous, 2016). In addition, the large refugee influx from Syria and Iraq has increased the spending on education, health and transportation as reflected in increasing the budget deficit which then reflected in increasing the internal debt.

The external debt declined in Jordan over the past 10 years from 50% of GDP in 2006 to 33.3% of GDP in 2015 because Jordan has had success pursuing structural

reforms in education, health as well as privatization and liberalization. The government of Jordan has introduced social protection systems and reformed subsidies, creating the conditions for public-private partnerships in infrastructure and making tax reforms including tax administration and management. In 2015, it has also focused on identifying concrete, although, still insufficient, steps towards enhancing the investment climate and ease of doing business (Anonymous, 2016).

This study is considered the first one conducted in the context of Jordan where all studies examined the public debt but there is no study examined the domestic debt or internal debt in Jordan.

Table 1 and 2 show the increase of internal debt and the decline of external debt as a percentage of GDP over the period (1991-2015) as well as the budget deficit in the same period.

Table 1 shows the growing of the domestic debt during the period (1991-2015) from 15-50% as a percentage of GDP and the declining of the external debt from 167-35% as a percentage of GDP because of the adverse regional developments in Jordan and reforms in education, health as well as privatization and liberalization. Table 2 shows the budget deficit in Jordan over the period (1991-2015) as a percentage of GDP.

Table 1: The internal and external debt in Jordan over the period (1991-2015) as a percentage of GDP

Years	Internal debts	External debts
1991	15.3	167.6
1992	16.7	126.7
1993	18.5	108.9
1994	17.4	108.3
1995	19.2	104.2
1996	16.8	105.1
1997	17.3	97.3
1998	19.9	95.1
1999	18.3	95.5
2000	20.6	84.2
2001	22.0	78.1
2002	24.4	78.9
2003	25.2	74.8
2004	21.9	66.1
2005	27.2	56.5
2006	20.6	49.3
2007	25.1	44.8
2008	31.5	23.3
2009	34.3	22.9
2010	36.5	24.6
2011	43.5	21.9
2012	53.0	22.5
2013	49.7	30.3
2014	49.2	31.6
2015	50.5	35.3

Table 2: The budget deficit in Jordan over the period (1991-2015) as a percentage of GDP

Years	The budget deficit as a percentage of GDP
1991	-12.8
1992	-1.9
1993	-2.4
1994	-3.0
1995	-3.6
1996	-4.7
1997	-9.1
1998	-8.9
1999	-5.9
2000	-6.0
2001	-6.4
2002	-6.9
2003	-10.6
2004	-9.7
2005	-6.1
2006	-6.5
2007	-7.5
2008	-6.8
2009	-10.9
2010	-7.7
2011	-12.7
2012	-9.8
2013	-8.2
2014	-7.2
2015	-6.8

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Table 2 shows the declining of the budget deficit from 12.8% of GDP to 6.8% as a percentage of GDP because Jordan has had success pursuing structural reforms in education, health as well as privatization and liberalization. Also, many researchers believe that the increase of internal debt is return to the increasing of the public government expenditures (current and capital

Table 3: The developments of the government current expenditures, capital expenditures as a percentage of GDP, inflation and real growth rate of GDP in Jordan over the period (1991-2015)

Years	Current expenditures	Capital expenditures	Growth rate	Inflation
1991	31.5	11.3	7.1	10.0
1992	28.2	7.6	22.0	3.9
1993	28.8	6.8	4.5	3.3
1994	27.8	6.5	5.0	3.5
1995	27.8	7.2	6.2	2.3
1996	27.6	7.6	2.1	6.5
1997	29.7	5.6	3.3	3.0
1998	29.3	6.5	3.0	3.1
1999	28.5	5.2	3.1	0.6
2000	28.6	4.8	4.2	0.7
2001	30.1	6.3	5.3	1.8
2002	28.0	7.3	5.7	1.8
2003	30.0	9.0	4.1	2.3
2004	29.4	9.9	8.6	3.4
2005	32.5	7.0	8.1	3.5
2006	29.6	7.5	8.0	6.3
2007	31.9	7.2	6.6	4.7
2008	28.7	6.1	7.2	14.0
2009	27.1	8.5	5.5	-0.7
2010	25.3	5.1	2.3	5.0
2011	28.0	5.2	2.6	4.4
2012	28.2	3.1	2.7	4.8
2013	25.4	4.3	2.8	5.6
2014	26.4	4.5	3.1	2.8
2015	24.8	4.2	2.4	-0.9

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expenditures) as a percentage of GDP as well as inflation and the real growth rate (Khrwish *et al.*, 2012; Budina and Fiess, 2004; Bader and Magableh, 2009).

Table 3 shows the developments of the government current expenditures, capital expenditures, inflation and real growth rate of GDP in Jordan over the period (1991-2015).

Table 3 shows the increase of government current expenditures and the declining of the capital expenditures which led to increase the domestic debt where the government current expenditures increased to 6 times of the capital expenditures due to the increase of consumptions responded to the unprecedented thunderous demands of its population inspired by the Arab Spring by adopting expansionary fiscal policies mainly to fund a widening of state subsidies, public sector hiring and salary increases (Kardoosh, 2014). The inflation rate in Jordan was recorded at -0.09% in 2015. Inflation rate in Jordan averaged 3.8% from 1991 until 2015, reaching the highest ratio of 14% in 2008 while reaching the lowest ratio of -0.09% in 2015, reflecting high unemployment, a dependency on grants and employee's remittances from the Gulf countries as well as continued pressure on natural resources (the Hashemite Kingdom of Jordan Department of Statistics (DOS) and the Anonymous (2016). Table 3 also shows the real growth in GDP recorded at 7.2% in 1991 and decreased to 2.4% in

2015, reflecting a stronger private consumption and a narrower trade deficit in part driven by lower oil prices (Anonymous, 2016).

In order to achieve the objectives of this study, it requires answering the following question what are the determinants of the internal debt in Jordan?

Literature review: Internal debt (domestic debt) is a part of the total government debt in a country which is measured by the net domestic debt of the central government. Government debts are used for financing government's operations. Public debt is the total of all government borrowings less repayments that are denominated in a country's home currency. Domestic debt may help in strengthening a country's financial markets and institutions and serve as a sort of collateral for the domestic banking system which may have more funds to support private investors (Kumhof and Tanner, 2005).

Abbas *et al.* (2007) investigate the Granger causality between domestic debt and economic growth as a percentage of GDP. As a sample, 93 low-income and developing countries are taken to find the relationship between the economic growth and the internal debt. The results of the study show that there is a negative relationship between economic growth and domestic debts, they also find that the economic growth is enhanced by the domestic debt.

There are many researchers believe that the increase of the internal debt is return to the high percentage of public government expenditures (current and capital), inflation and real growth rate (Khravish *et al.*, 2012; Budina and Fiess, 2004; Bader and Magableh, 2009).

Khravish *et al.* (2012) investigate the relationship the budget deficit and money demand in the context of Jordan over the period from 1992-2010. Multiple linear regression, co-integration and vector error correction models are used for analysis. The results of study show that the real money demand is statistically significant positive affected by the following variables: real GDP, real budget deficit, real internal debt and real external debt while negatively affected by consumer price index, real government expenditure and deposit rate.

Bader and Magableh (2009) investigate the determinants of public debt in the context of Jordan over the period from 1980-2005. They study the relationship between public debt and government budget deficit, the savings gap, the size of foreign aids and the real exchange rate. The external debt is significantly influenced by budget deficit, savings gap and real exchange rate, however, the last one is the most effective. These factors lead to lower the ability of government to repay the debt

service of the outstanding balance of public debt and generate an extra demand for new internal loans. Lowering accumulation of debt and burden of debt could be achieved by increasing local savings and controlling the fiscal position. Finally, the government of Jordan could break the unplanned growth in public debt by focusing on the stability of the Jordanian Dinar value.

Budina and Fiess (2004) investigate the factors affecting the public debt for 15 market access countries for the period from 1990-2002. They used the following variables: primary deficit as a percentage of GDP, the real growth rate in GDP, the weighted averages of domestic and foreign interest and local inflation. The results of study show that the public debt is statically significant affected by primary deficit as a percentage of GDP, the real growth rate in GDP, the weighted averages of local and foreign interest and local inflation.

Alshyab (2016) examines the effect the public debt on the economic growth in the context of Jordan over the period 1980-2013. A neoclassical growth model, based on a Cobb Douglas function with capital, labor and public debt as independent factors of production, this model test with three different specifications of the variable public debts which including: total, domestic and external debt. The results show that the economic growth is inversely influenced by both the public and the internal debt.

Singh (1999) examines the impact of internal debt on economic growth in the context of India during the period from 1959-1995 by using co-integration and Granger causality. In the long term, the economic growth is negatively affected by internal debt as suggested by the traditional view. However, the internal debt is irrelevant to the economic growth as suggested by the Ricardian hypothesis. His results point at no co-integration between domestic debt and growth but support the neutrality hypothesis. The Ricardian equivalence hypothesis between domestic debt and growth is supported by Cointegration and the Granger causality tests.

Also, there are many studies examined the determinants of public debts like "public debt and Its determinants in low income countries results from 7 country case studies, this study prepared by World Bank (2008) to examine the determinants of public debt dynamics in Low Income Countries (LICs) over the period 1990-2003. The results of study shows a high degree of heterogeneity across low income countries which underscores the importance of country-specific factors. These include the fiscal stance, the structure of the economy, the exchange rate systems, the composition and structure of the debt and debt management policies (Bandiera, 2008).

Other studies examined the determinants of public debts like “The effect of public debt and other determinants on the economic growth of selected European countries by Stefengena (2012). The finding confirm the hypothesis that country determinants influence the efficiency of public borrowing and its effect on GDP. Surprisingly, no relation between debt crisis, level of government debt and its effect on GDP could be found. On the contrary, private borrowing showed a positive effect on the economy in every country where it resulted statistically significant. Interesting results were achieved concerning the openness of the economy and foreign direct investment. They were unequal whereas initially supposed to be mostly positive.

Sinha *et al.* (2011) investigate the factors affecting the public debt for 31 countries over the period from 1993-2008 for high income group while over the period from 1980-2008 for middle income group by using a panel data. Total effects model, cross section fixed effects model, cross section random effects model are used in this study to examine the variables that affect the public debt in middle and high income group countries. The results show that the main determinants of the public debt are the central government expenditure, education expenditure and current account balance. In addition, the growth rate in the GDP is considered the most significant factor affecting the public debt for both groups. The results also show that the debt is not affected by both FDI and inflation.

Tesic *et al.* (2014) investigate the effect of budget deficit and public debt on the economic growth in the context of Serbia over the period from 2001-2012. The results show that the current account deficit for an economy and government budget deficits are strongly correlated. Also, they find that the burden of debt has increased and weakness of the the relationship between the development of the economy and the debt is as well as the power of the state and threatened to open debt crisis, the emergence of foreign insolvency. Finally, they find that the increasing of budget deficit leads to the crisis of public finances and the most of the budget deficit is financed by the external debt.

Rumman (2016) examines the amount and the increase of the public debt in Jordan over the period from 2010-2014 and how to manage it. Evolution of Jordan’s public debt and its management’s strategy for the years 2010-2014. He find a large increase in the amount of the public debt where public debt has increased about 80% despite adopting many strategies by the government of Jordan. In general, there is an increasing trend in the public debt in Jordan.

Ahmad *et al.* (2012) examine the relationship between internal debt and inflation in the context of Pakistan

over the period from 1972-2009. They find a relationship between domestic debt and inflation is direct and evident. Also, they find a significant relationship between domestic debt and deficit budget. This relationship is the result of increased public spending which requires a restructuring of the financial policies of the government, led by the tax policy. In addition, the budget deficit is highly affected by the interest rate. They suggests some polices to decline the internal debt such as enhancing tax base and use structural reforms to reduce expending.

Al-Shatti (2014) investigates the impact of the fiscal policy on the economic development in the context of Jordan during the period from 1989-2013. The findings show that the economic development in Jordan is significantly positively affected by both current expenses and annual tax revenues while it is significantly negatively influenced by the capital expenditures and the annual tax revenues. Finally, the economic development in Jordan is statistically significant by the components of the fiscal policy (annual tax revenues, current expenditures and capital expenditures). Finally, there is a study entitled “Jordan Fiscal Reform Bridge Activity” prepared by Senior Financial Economist to support Ministry of Finance (MOF) in developing analytic capabilities in a number of areas including mainly macro-fiscal policy, debt management and tax policy. The senior financial economist recommended the need to increase public debts (internal and external) it is required to restructuring of the jordanian economy in order to pay off the public debt of the country (internal and external).

MATERIALS AND METHODS

This study follows a functional model which already employed earlier by Budina and Fiess (2004), Stefenhagena (2012) and Sinha *et al.* (2011). We use Ordinary Least Squares (OLS) for the determinants testing purposes. Therefore, we use the following multiple regression model to examine the determinants of internal debt in Jordan:

$$INT = c + a_1 DFB + a_2 CEP + a_3 CAP + a_4 INF + a_5 GR + E$$

Where:

INT = Internal Debt

BDF = Budget Deficit

CEP = Current Expenditure

CAP = Capital Expenditure

INF = Inflation

GR = Growth rate

a(s) = Regression coefficients

c = Constant

E = Error

Table 4: Summary statistics for dependent and independent variables (1991-2015)

Variables	N	Minimum	Maximum	Mean	SD
Internal (INT)	25	15.30	53.0	27.7840	12.24080
Deficit (BDF)	25	-1.90	-12.8	-7.2840	2.89680
Current (CEP)	25	24.80	32.5	28.5280	1.91450
Capital (CAP)	25	3.10	11.3	6.5720	1.88230
Growth GDP (GR)	25	2.10	22.0	5.4200	4.00210
Inflation (INF)	25	-0.90	14.0	3.8280	3.16410

Data: The sample of this study consists of a time series data for the internal debt as a dependent variable and the following independent variables: budget deficit, current expenditure, capital expenditure, inflation rate and growth rate in GDP in Jordan over the period (1991-2015). The study depended on the following sources for collecting the data needed:

- Annual reports issued by World Bank (WB)
- Annual reports issued by International Monetary Fund (IMF)
- Annual report issued by the Amman Stock Exchange (ASE)
- Annual reports issued by the Central Bank of Jordan (CBJ)
- Statistics issued by the Jordanian General Statistics Department (JGSD)
- Annual reports issued by the Ministry of Finance (MOF)

Summary statistics: Table 4 summarizes the statistics for the variables (dependent and independent variables) which used in this study over the period (1991-2015).

It can be seen from Table 4 that the minimum of the internal debt as a percentage of GDP is 15.3 while the maximum one is 53 indicating that the internal debt as a percentage of GDP increased by 246% over the period of study (1991-2015). The mean of internal debt is about 28% of GDP and a standard deviation of 12.24 indicating a high variation of the internal debt from year to another over the period (1991-2015). The minimum of the budget deficit as a percentage of GDP is -1.9 while the maximum one is -12.8 indicating that the budget deficit as a percentage of GDP increased by 573% over the period of study (1991-2015). The mean of the budget deficit is about -7.3% of GDP and a standard deviation of 2.89, indicating a slight variation of the budget deficit from year to another over the period (1991-2015). The current expenditure as a percentage of GDP ranges from 24.8-32.5 while its mean is about 29% of GDP and a standard deviation of 1.9, indicating a slight variation of the current expenditure from year to another over the period (1991-2015). The capital expenditure as a percentage of GDP ranges from 3.1 -11.3 while its mean is

about 7% of GDP and a standard deviation of 1.88, indicating a slight variation of the capital expenditure from year to another over the period (1991-2015). The growth in GDP ranges from 2.1 -22 while its mean is about 5% and a standard deviation of 4, indicating a high variation of the growth in GDP from year to another over the period (1991-2015). The growth in the inflation rate ranges from -0.9 indicating the decline of the general level of price in one year to 14 while its mean is about 4% and a standard deviation of 3.16, indicating a high variation of The growth in the inflation rate from year to another over the period (1991-2015).

Table 5 shows that the highest correlation is between the internal debt and the capital expenditure which is negative and highly significant. The second highest correlation is between the internal debt and the current expenditure which is negative and highly significant. The third highest correlation is between the current expenditure and the capital expenditure which is positive and highly significant as well. Finally, the lowest correlation is between the internal debt and the inflation rate which is negative but insignificant because inflation is associated with an increased stability of prices and production while public debt is linked to the inability of the government to meet its obligations due to lower general revenues of the state. At the present time, many economists and market participants seem to believe that there is little relationship between government debt and inflation. People point to the current high levels of government debt in Japan and/or the United States as proof that high levels of government debt (relative to GDP) have little to no impact on inflation (<http://www.themoneyenigma.com/government-debt-inflation-the-important-role-of-fiscal-policy/>). We also noticed from the correlation coefficients between each two independent variables and between each independent variable and the dependent one that there is no co-linearity between variables.

Study hypothesis: Based on the above discussion the hypotheses can be formed as follows:

- H_{01} : there is no relationship between the internal debt and the budget deficit
- H_{02} : there is no relationship between the internal debt and the current expenditure
- H_{03} : there is no relationship between the internal debt and the capital expenditure
- H_{04} : there is no relationship between the internal debt and the growth rate of GDP
- H_{05} : there is no relationship between the internal debt and the inflation rate

Table 5: Correlation matrix among the variables for internal debt Model over the period (1991-2015)

Correlation matrix	Internal	Deficit	Current	Capital	Growth GDP	Inflation
Internal						
Pearson correlation	1.000					
Sig. (2-tailed)						
N	25.000					
Deficit						
Pearson correlation	-0.355	1.00				
Sig. (2-tailed)	0.002					
N	25.000	25.00				
Current						
Pearson correlation	-0.566**	-0.137	1.00			
Sig. (2-tailed)	0.003	0.515				
N	25.00	25.000	25.00			
Capital						
Pearson correlation	-0.627**	-0.166	0.529**	1.000		
Sig. (2-tailed)	0.001	0.429	0.007			
N	25.000	25.000	25.00	25.000		
Growth GDP						
Pearson correlation	-0.372	0.350	0.286	0.423*	1.000	
Sig. (2-tailed)	0.047	0.086	0.165	0.0350		
N	25.000	25.000	25.000	25.0000	25.000	
Inflation						
Pearson correlation	-0.056	-0.118	0.227	0.1980	0.150	1
Sig. (2-tailed)	0.792	0.573	0.275	0.3420	0.474	
N	25.000	25.000	25.000	25.0000	25.000	25

*Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed)

RESULTS AND DISCUSSION

Table 6 shows the results of the regression analysis of the internal debt model used to explain the determinants of internal debt in Jordan over the period (1991-2015).

As we note from Table 6 that there is a statistically negative significant effect of the budget deficit on the internal debt, when the budget deficit increases, the internal debt will decrease and vice versa. This result reflects the increase in public spending which requires a restructuring of the financial policies of the government, led by tax policy. This result is in line with the results of the study of Rumman (2016), Ahmad *et al.* (2012) and Al-Shatti (2014). We also note from Table 6 that there is a statistically negative significant effect of the current expenditure on the internal debt, when the current expenditure increases, the internal debt will decrease and vice versa., this result reflect the increase of current expenditures because of the adverse of regional developments in Jordan in particular with the Syria and Iraq crises as reflected in the large refugee influx, disrupted trade routes and lower tourism inflows. The large number of Syrian refugees entering the country has had a strong impact on the current expenditures. This result is similar to the results reached by Rumman (2016), Ahmad *et al.* (2012), Al-Shatti (2014) and Tesic *et al.* (2014).

Table 6 shows that there is a statistically negative significant effect of the capital expenditure on the internal debt when the capital expenditure increases, the internal debt will decrease and vice versa. as reflected adverse regional developments in Jordan and reforms

Table 6: Regression analysis of the internal debt model used over the period (1991-2015)

Variables	Coefficient	SE	t-statistic	Sig.
C	103.285700	23.414720	4.411146	0.0003
BDE	-2.389009	0.589904	-4.049829	0.0007
CEP	-2.489160	0.918732	-2.709343	0.0139
CAP	-3.925683	1.017740	-3.857255	0.0011
GR	0.562642	0.464915	1.210204	0.2410
INF	0.224015	0.482922	0.463873	0.6480

Dependent variable: Internal debt; Method: Least squares; Sample: (1991-2015); Included observations: 25; R² = 0.727291; Mean dependent var = 27.78400; Adjusted R = 0.655525; SD dependent var = 12.24080; SE of regression = 7.184367; Akaike info criterion = 6.987255; Sum squared resid = 980.6876; Schwarz criterion = 7.279785; Log likelihood = -81.34069; Hannan-Quinn criter = 7.068391; F-statistic = 10.13426; Durbin-Watson stat = 1.033430; Sig. (F-statistic) = 0.000075

in education, health as well as privatization and liberalization. This result is similar to the results reached by Rumman (2016), Ahmad *et al.* (2012), Al-Shatti (2014), Tesic *et al.* (2014) and Alshyab (2016). Table 6 also shows that there is a statistically insignificant positive effect of the growth in GDP on the internal debt, many researchers led by decrease economic growth in the past 10 years ago where reached in year 2015 to 2.4 % in Jordan, it means that the growth rate of GDP is not sufficient to increase production and foreign trade and this leads to increased internal borrowing for financing its public and social needs (Anonymous, 2016). This result is similar to the results reached by Rumman (2016), Ahmad *et al.* (2012), Al-Shatti (2014), Abbas *et al.* (2007) and Alshyab (2016). Finally, Table 6 shows that there is a negative but insignificant relationship between the internal debt and the inflation rate, many researchers led by many economists and market participants seem to believe that there is little relationship between government debt and

inflation. People point to the current high levels of government debt in Japan and/or the United States as proof that high levels of government debt (relative to GDP) have little to no impact on inflation (<http://www.themoneyenigma.com/government-debt-inflation-the-important-role-of-fiscal-policy/>).

Table 6 shows that the R-squared is equal about 73%, indicating that about 73% of the variability in the internal debt in Jordan over the period from 1991-20015 is explained by the variability of all independent variables included in the model while the remaining 27% is explained by external factors not included in the model. Further, there is no autocorrelation (serial correlation) between the error terms as noticed from the value of the Durbin-Watson.

CONCLUSION

The primary objective of this study is to examine and analyze the determinants of the internal debt in Jordan over the period (1991-2015). The internal debt has been selected because the internal debt increased over the past 10 years from 20.6% of GDP in 2006 to 50.5 % of GDP in 2015 while the external debt declined in Jordan over the past 10 years from 50 % of GDP in 2006 to 33.3% of GDP in 2015 because the Jordan has had success pursuing structural reforms in education, health, privatization and liberalization as well as this study is considered the first one to be conducted in Jordan where all studies carried out in Jordan examined the public debt, however, no study examined the domestic debt (internal debt) in Jordan.

This study follows a functional model which already employed earlier by Budina and Fiess (2004), Ribeiro *et al.* and Sinha *et al.* 2011. We use Ordinary Least Squares (OLS) for the determinants testing purposes. The analysis revealed that there are significant and negative relationship between Internal debt (INT) and Budget Deficit (BDF), Current Expenditure (CEB) and Capital Expenditure (CAB). Also, there is a negative but insignificant relationship between internal debt (INT) and both Inflation rate (INF) and Growth Rate (GR).

Finally, this study will be useful for the fiscal and monetary policy for rationalization of fiscal and monetary policies in order to reduce internal debt as well as this study will be useful for monetary and financial authorities.

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