

Fiscal Deficit and Economic Growth:

Structural Behavior of the Jordanian Economy

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Abstract— The purpose of this study is to investigate Jordan's current fiscal conditions, development, and its effect on the economy in the context of a fragile recovery from the global financial crisis 2008 (GFC). It examines the relationship between before and after grants fiscal deficit and economic growth and analyzes the past trends of the major fiscal variables and policy measures. The results suggest that before (after) grants fiscal deficit yields a weakly positive (negative) correlation with GDP growth, in short and long term alike. Therefore, this supports the Neo-Ricardian viewpoint of neutral effect of fiscal deficit on economic growth.

Keywords— Fiscal Deficits, Economic Growth, Global Financial Crisis, Jordan

I. INTRODUCTION

Jordan has a long history of running fiscal deficits. However, the sharp increase in its fiscal deficit after the global financial crisis 2008 (GFC) is a major concern. According to the Central Bank of Jordan's (CBJ) [1], fiscal deficit ratio, as a percentage of Gross Domestic Product (GDP), has reached 8.9% and is expected to increase to about 10% in 2010 and 2011. This increase reverses all the fiscal gains made since it decreased from 4.7% in 2007 to 2.2% in 2008. Likewise, the local debt to GDP ratio has increased sharply from 38.2% in 2008 to 43.6% in 2009; while the foreign debt ratio decreased slightly from 24.2% in 2008 to 23.8% in 2009.

The waves of the GFC have been passed on to the Jordanian economy through three distinct ways, namely: the workers' remittances, government aids and grants, and foreign direct investments (FDI). The other significant channel of impact is the fall in business and consumer confidence leading to decrease in investment and consumption demand [2]. To boost the demand, the Jordanian government has adopted several stimulus policies. All of which, however, have contributed to higher fiscal deficit of the government. Thus, there is not much room for additional fiscal incentive packages as the public debt of the governments in 2010 is about 65% of the (GDP). Any increase in the fiscal deficit and, hence, borrowings could lead to downgrading the Jordanian's credit rating and a loss of confidence.

There are three, though not mutually exclusive, ways to finance fiscal deficit: by local borrowing, foreign borrowing, or by printing money. Each of which has its adverse effect. Excessive borrowing from the local market would put upward pressure on interest rates [3], while foreign borrowing may

burden the foreign reserves. In a non-productive economy, printing money would inevitably lead to higher inflation.

II. THEORETICAL BACKGROUND

The effect of fiscal deficit on output growth is a highly debated issue as there is no consensus among economists on this issue. The Keynesian approach advocates the positive impact of fiscal deficit, while Classical and Neo-Classical ones support the negative impact of fiscal deficit. The Keynesian argue that high fiscal deficits are not unusual for developing economies as governments use fiscal deficits to keep aggregate domestic demand at high levels in order to accelerate capital accumulation, generate growth and employment. They state, however, that an increase in public sector investment, especially in infrastructure, while leads to fiscal deficit, stimulates growth in the private sector [4]. Therefore, provides the private sector sufficient incentives to invest on a massive scale (crowd in), resulting in overall economic growth [5].

On the other hand, Classical and Neo-Classical theory claim that financing higher public investment by high fiscal deficits may crowd out private investment, or more generally expenditure [6]. Implicitly assuming that the economy is already at near full capacity level, public investment-driven fiscal deficits displace private investment through an increase in the interest rate; particularly, when the government borrowed from the local financial markets to finance the deficit [7]. Generally speaking, public expenditure increases aggregate consumption in the economy [8] which leads to a reduction in aggregate savings, which results in higher interest rates, which in turn discourages private investment and overall economic activity in a closed economy. Likewise, In an open economy, higher public investment leads to higher capital inflows and a real appreciation of the currency, which results in lower net exports and, in turn, a reduction in economic activity. In either case, higher public spending will result in a reduction in overall economic activity.

A new approach has been introduced by the Neo-Ricardian, which differs from both the Keynesian and Classical and Neo-Classical approaches. The Neo-Ricardian argues the effect of public investment increase on the economy is neutral [4]. Rational economic agents in the economy will adjust their expenditure in relation to movements in public expenditure. Consequently, there is no impact on the economy and overall savings remain unchanged

[9]. However, the empirical support in favor of the Ricardian view seems to be weak [10].

Given large fiscal deficits and high debt to GDP ratio, one might question the sustainability of fiscal increase [11]. On one hand, public expenditure is less efficient than the crowded out private investment, even though it is capital expenditure. On the other hand, the negative effect of fiscal deficit would be magnified when such spending is to finance current expenditures. Thus, controlling fiscal deficits stimulates growth in the long run [12]. However, given that empirical studies support both the neo-classical and Keynesian views, no prescribed policy conclusion can be recommended.

Fiscal deficit has always continued to be a source of angst for Jordanian government. Even though notable boosts in the revenue from sales tax, there is a genuine apprehension that fiscal disproportion will get worse, causing public debt to increase and crowd out FDI. More budgets with fiscal deficits will eventually lead to more loans from local financial markets, and increasing interest rates [13]. All of which at the cost of individual and business borrowers, and will run off savings available for the private sector. Moreover, large deficits will entail foreign debt, which in turn raises balance of payments deficits [14]. However, controlling fiscal deficit by reducing public spending would cause detriment to the economy. In addition, focusing only on budget deficits can be misleading. To reach fiscal stability, more attentions are needed as for the effective public expenditures, efficient investments, appropriate tax rates, and necessity of borrowings [15].

III. FISCAL DEFICITS IN JORDAN: A PROTOTYPE

In order to understand the relationship between fiscal deficit and economic growth in Jordan, a closer look at their trends and patterns over the last two decades. The period of the study (1990–2009) covers the economic reform period (1990–1999), post-reform period (2000–2008), and the third period is the year 2009, the latest data is available, which represents the affected period by the GFC. The data includes fiscal variables, such as revenues, taxes, expenditures, subsidies, debt and deficit; and economic variables, such as consumption, savings and economic growth. The analysis is based on an annual time series corresponding to the fiscal year (1 January to 31 December). The data is drawn from the CBJ's Monthly Statistical Bulletins and Annual Reports [1].

During the reform period, domestic revenues grew by an average of 10%, and that of post-reform period by 12%, while shrink by (4%) during the GFC period. However, total government expenditures grew by almost similar rates as of domestic revenues during the reform and post reform periods, and continued to grow by 11% during the GFC period. The data reveals clear evidence on the prudentially government fiscal expansion during the reform period. Since such expansion was associated with declining public debt and economic growth. The case was reversed during the post-reform period. The surge in economic growth, with an average of 12%, was, unfortunately, achieved by unsustainable fiscal expansion financed by domestic credit and borrowing, which

grew by an average of 22% yearly. The effect of GFC was clear. Growth decelerated to 11% in 2009, but still financed by both domestic and foreign debt.

The analysis of direct sources of fiscal deficit indicates that during the reform period, domestic revenues totally covered current expenditures, while capital expenditures, which represent 20% of total expenditures, financed by foreign grants and public debt. This kept the before grants deficit at about 7.2% of GDP, and 2.0% after grants. However, due to the regional political instability and the invasion of Iraq in 2003, as well as a sharp increase in government salaries and pensions halted the process of fiscal improvement. Domestic revenues declined to cover only 97% of current expenditures, causing fiscal deficit before grants to grow to 8.2% of GDP, and 2.2% after grants. The effect of GFC on Jordan's budget is obvious, as the deficit ratios have not reached such high levels since the beginning of the economic structure and reform in 1990s.

Figure (1) shows the pattern of revenues indicators and deficit ratios. It shows the decreasing ratios of the ability of domestic revenues to finance current expenditures by only 91%, and by merely 69% of total expenditures; and the increasing ratios of fiscal deficit to GDP to 10% before grants and 8% after grants, representing the highest level ever during the period 1990–2009. Since capital expenditures have been rising, from an average of 19% of total expenditures during the reform period to 21% during the post reform and further after GFC to 24% in 2009, it is apparent that these expenditures were the main factor accounting for the rise in the deficit.

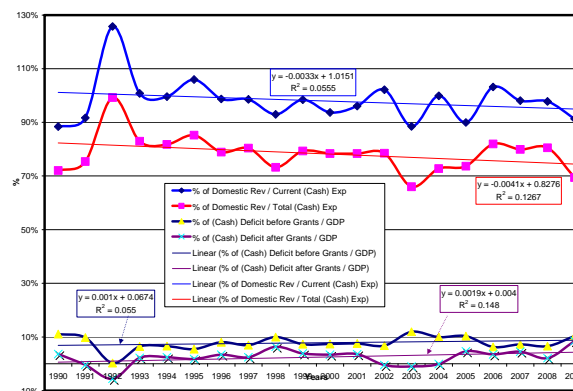


Figure (1) Budget Deficit Patterns during the Period 1990-2009

It can be seen from the figure that the coefficient of variation of the ratio of domestic revenues to current expenditure is negative ($\beta = -0.0033$), which indicates the rising level of expenditures, due to debt charges. Similarly, domestic revenues to total expenditures ratio has a higher negative ($\beta = -0.0041$). Whereby those of before and after grants deficit to GDP have almost flat trend line. This is, in

fact, due to higher growth level of GDP (current at market prices), particularly during the period 2005-2009.

However, zero deficit is not always agreeable as it might be thought of. In a developing country like Jordan, there is an ample place for infrastructure investment, whereby the government is required to spend on social infrastructure such as hospitals, roads, water and sewerage, and schools. In addition, government expenditures are a major driver of economic activities [8]. Thus, more public expenditures mean growing business activities. Furthermore, little budget deficit financed by domestic borrowings would contribute to the assets utilization of local banks. It can be argued that Jordanian banks always have excess funds available for investments. But with limited economic activities, excess resources are deposited for free in the CBJ. Thus, financing public expenditures would mobilize such sleeping funds.

The pattern of budget deficits mirrored in the rising public debt levels. The combined domestic and foreign debt of the governments, which averaged JD 6,002.5 million during the reform period, rose to an average of JD 7,185.2 million during the post reform period and climbed after GFC to JD 9,660.0 million in 2009. The foreign debt level was stable during both periods, with an average of JD 4,995.4 million during 1990-1999 and JD 5,026.8 million during 2000-2008, and even declined to JD 3,869.0 million in 2009 due to debt purchased using privatization proceeds. However, domestic debt level more than doubled from an average of JD 1,007.1 million during 1990-1999 to JD 2,158.4 million during 2000-2008, and almost tripled to reach its peak JD 5,791.1 million in 2009.

Nevertheless, figure (2) exhibits a notable reduction in the share of the foreign debt to GDP from an average of 154% (representing 25 times of foreign grants) during 1990-1999 to 83% (1.2 times of foreign grants) in 2000-2008, and further to 54% in 2009. In fact, foreign debt to GDP dropped significantly during the whole period of study, with a $(\beta = -0.0803)$ and 81% level of determination (R^2), than that of domestic debt, which decreased from an average of 26% (representing 86% of domestic revenues) during 1990-1999 to 22% (83% of domestic revenues) during 2000-2008, then jumped to 33% (138% of domestic revenues) in 2009.

Thus, in the relative term, although the absolute numbers of public debt, particularly domestic debt, have increased over the study period, these have declined significantly up until the 2008, in which they start to rise as an immediate result of the GFC.

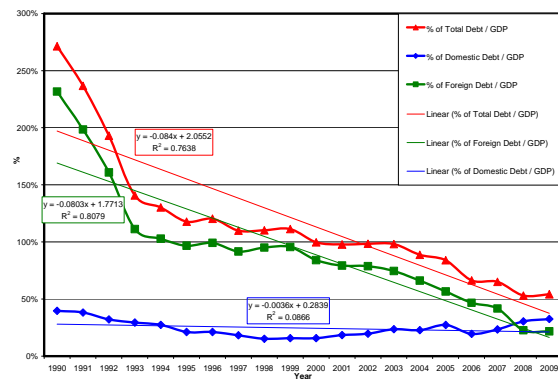


Figure (2) Debt to GDP Ratios

Figure (3) plots annual data on total public debt and GDP at current market prices during the period 1990-2009. The scatter plot illustrates trends that are comparable with that in the case of the fiscal deficit throughout the period of the study, confirming the structural and cyclical behaviors of public debt over decades. During the period of structural adjustment 1990-1999, there is a negative relationship between GDP and public debt, implying falling public debt has had a positive impact on economic growth. However, there seems to be a downturn in the fiscal policy during the last decade 2000-2009. The rising public debt has had a positive relationship with GDP, implying that the growth had been financial not production.

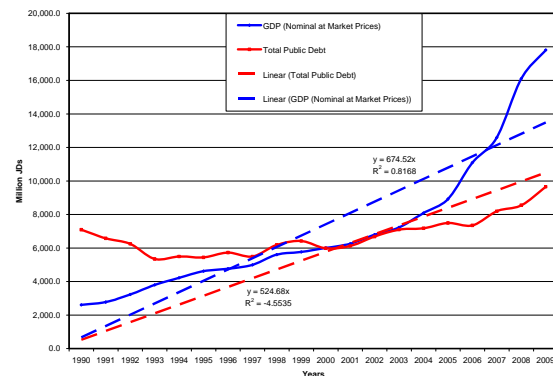


Figure (3) Plot of Public Debt and GDP during the Period 1990 to 2009

There is little consensus about the ideal ratio of debt to GDP ratio. Jordanian Law of Domestic Debt states the allowable domestic and foreign debt level at around 60% of GDP, which is 65% in 2010, but the Law does not mention how much foreign debt of that ratio, which is about 22%. Budget estimates for 2010 and 2011 show higher deficits, combined with lower level of economic growth than in 2009. Since the budget deficit is always the core variable for increasing public debt in Jordan, the ratio of debt to GDP is expected to increase further.

Since capital expenditures have been rising over the periods of the study, from an average of 19% of total expenditures during the reform period to 21% during the post reform and

further after GFC to 24% in 2009, it is apparent that these expenditures were the main factor accounting for the rise in the deficit. In a small economy, however, government expenditures increase the economic growth, according to [8], by more than 2.7%.

The average government expenditure stood at 37% of GDP in the 1990s. The ratio fell by 2% immediately after completing the Structural Program, mainly because of the macroeconomic stabilization program that followed the 1988 Jordanian currency crisis. During the GFC, the government maintained even a lower level, about 34% of GDP, over the last two years 2008-2009. This expenditure control was achieved by cutting down current expenditures, from an average of 81% of total expenditures during 1990s to less than 79% during the last decade, and further to 76% in 2009. Thus, the composition of government expenditure, which has always been a matter of concern, remains around a ratio of about 80%-20% current-capital expenditures (See figure (5) below), and the total expenditures around 35% of GDP and declining during the whole period of the study.

In 2009, food inflation in Jordan is running as high as 31.1% [1], relative to the base year 2006, and lending credence to an already strong argument for more of governmental role in protecting the poor and low-income families. One controversial item of government expenditures is the subsidies. There are three types of subsidies. These are food, relief operations and emergency and oil. In fact, total subsidies increased from JD 62.1 million in 1990 to JD 613.7 million in 2005, and then fluctuated up and down till reached JD 235.6 million in 2009, representing an average of 4.3% of total expenditure during the 1990s, when there was no oil subsidies; and an average of 7.3% during the 2000s, most of which were oil subsidies. However, this ratio declined significantly during the GFC from 12% in 2007 to 9% in 2008 and further to 4% in 2009. On the other hand, total subsidies was representing merely 1% of GDP during the 1990s, but increased to 2% in the 2000s. This ratio declined during the GFC from 3% in 2008 to 1% in 2009.

However, budget data does not indicate the actual government expenditure on subsidies because there are several subsidies are hidden in the customs-free and tax-free on many, production and importing, intermediate goods and services. Thus, the quantum of subsidies at the stage of final consumption is not clear or indicated by budgetary data. Explicit government subsidies on foods, relief and oil are only a small portion of total subsidies. In 2009, food inflation in Jordan is running as high as 31.1% [1], relative to the base year 2006, and lending credence to an already strong argument for more of governmental role in protecting the poor and low-income families.

Nevertheless, the persistent expenditures reveal that total domestic revenues of both tax and non-tax, have remained consistently below total expenditures (See figure (1) above).

Tax receipts, which contribute the bulk of the central government revenues of more than 55%, increased sharply after the introduction of the reforms in 1992. This was the result of the rationalization of the tax structure. The tax (non-tax) receipts grew by an average of 11% (9%) during the 1990s, 14% (11%) in the 2000s, and as little as 4% (declined sharply by -19%) during the GFC.

Total tax revenue as a proportion of GDP increased from 16% in the 1990s to the highest level of 20% in 2005 and 2007 and declined a bit to 17% in 2008 and 16% in 2009. It was only in 2002–2003 that tax revenue touched the level it was at in the late 1990s, as it can be seen in figure (4).

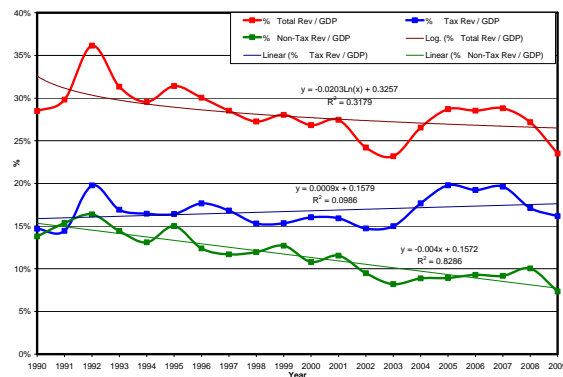


Figure (4) Tax & Non-Tax Revenues to GDP Ratios during the Period 1990-2009

The tax reforms initiated since 1992 were part of the Economic and Social Reform Program (Structural Program 1992-1998) after the 1988 national currency crisis. The Structural Program concentrated on finding a suitable framework to reform both the direct and indirect tax structure. It recommended two major reforms on direct taxes: one was the simplification and rationalization of the direct tax structure; the other was to introduce a service tax to widen the tax base [16].

Although the 1992 reforms radically altered the composition of tax revenue at the central level, income taxes as a percentage of GDP remained at about 3%-4% during the whole periods of the study. However, this stability in the proportion of income taxes was offset by a sharp rise in sales tax revenues as a percentage of GDP from 5% in the 1990s, to 10% in the 2000s, and decreased a bit to 9% during the GFC. The share of non-tax revenue in GDP declined from 14% in the 1990s to 10% in the 2000s and further to the lowest level ever of 7% during the GFC.

The government also introduced a service tax in 1989 in line with the recommendations of the Structural Program. Until then, the service sector had been totally left out of the tax net. The coverage has six services, viz. hotels, restaurants, and departure, airline tickets, insurance policies, and property sale. Some important services that are still outside of the tax net are

banking and other financial services, management consultants, credit agencies, market research agencies, legal consultancy services, transport of goods, and cosmetic or plastic surgery. The rate imposed originally was a moderate 10% of turnover and still the same. Collections from service tax have shown a rise during the introductory years, 1990 and 1992, from 2% of GDP to 3%, but declined to 1% thereafter till the end of the period of the study. This might be due to restructuring many service and other taxes by sales tax.

Major changes on the indirect tax side included a sharp reduction in import duties from extremely high levels, 100% - 300%, to a range of 15–30% for manufacturers, reduction of multiple excise tax rates to three in the range of 10–20%, and extension of the then existing modified value added tax (MODVAT) credit to all inputs. The government should move to a goods and services tax (GST) regime, which can replace MODVAT. The tax should be imposed on final goods and services with a two-rate structure. The GST is expected to mark a major step in unifying the tax regime in the country and do away with tax arbitrage that currently disturbs investment decisions. Fiscal health depends both on revenues from taxes as well as constitutional and other receipts.

The weakening in the fiscal situation of the governments has affected public sector savings and investment. Public (private) consumption grew at an average rate of 9% (9%) during the 1990s, which was similar to that of the GDP, and jumped to 11% (13%) during the 2000s, respectively. The contribution of domestic savings in nominal output averaged just about 3% in the 1990s. In fact, it started the period with a negative contribution, but the successful implementation of the Structural Program enhanced it to reach its highest level ever in 1995 with 13%.

However, public sector savings deteriorated in the period after reforms were completed, turning negative (-4%) in the 2000s. Though there was some improvement in 2008, which turned 0% only in 2008. The estimation for the period of GFC is expecting a sharp deterioration in 2009–2011 when public sector savings turned negative again. Budget estimates for 2009–2011 indicate a further deterioration.

There is an anxiety that high fiscal deficits would crowd out private investment by keeping interest rates high in the short-term. In the long term, the lack of critical investments would prevent the crowding in effect from becoming operative. A growing fiscal deficit will, therefore, adversely impact both the long and short-term growth prospects of the economy.

IV. THE RELATIONSHIP BETWEEN FISCAL DEFICIT AND ECONOMIC GROWTH

The association between the fiscal deficit and economic growth has been of continuing interest for the Jordan economy. Figure (5) plots the annual data of the fiscal deficit without grants (DfctWGrnt) of the government against GDP at market prices from 1990 to 2009. It shows that there is a

considerable long-run organized association between these two factors. This indicates that the relationship is structural rather than cyclic.

However, for a short period over 1992, fiscal deficit decreased while the output increased. This negative relationship could be attributed to the implementation and realization of Structural Program targets. There is a hasty bound in fiscal deficit in 2008–2009, though output has grown, making the association between fiscal deficit without grants and GDP horizontal in that period. Nonetheless, there is an upward linear trend exhibited throughout the study period implying a positive relation between fiscal deficit and output growth.

Figure (6) plots the annual data of the fiscal deficit with grants (DfctWGrnt) of the government against GDP at market prices from 1990 to 2009. It shows no relationship of association between these two factors. This indicates that the relationship is structural rather than cyclic.

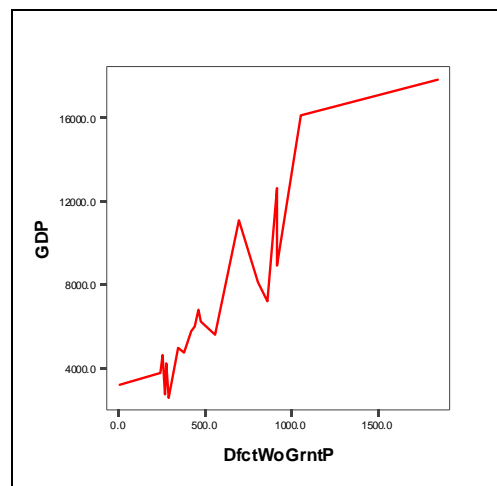


Figure (5) Scatter Plot of Government Fiscal Deficit before Grants (DfctWGrnt) Against Gross Domestic Product (GDP) during the Period 1990 to 2009

Moreover, for a short period over 1991–1992 and 2002–2004, fiscal deficit after grants disappeared while the output increased. This negative relationship could be attributed to the implementation and realization of Structural Program and Refreshment Program targets, respectively. However, there is a big jump in fiscal deficit after grants in 2008–2009, though output has grown at a 27.9% and 10.6% rates, respectively. Nonetheless, there is no trendy pattern exhibited during the study period between fiscal deficit after grants and output growth.

However, when fiscal deficit before grants as a percentage of GDP is plotted (Figure (7)), the relative growth of fiscal deficit before grants to GDP exhibits cyclical behavior through the study period. The cycle does not seem to correspond with the electoral cycle but the peaks coincide with

the recommendations Structural Program, and the low downs match with fiscal reforms of the Refreshment Program targets. A reversed cycle is seen when fiscal deficit after grants as a percentage of GDP is plotted. Figure (8) exhibits reversed cyclical behavior through the study period of that shown in figure (7).

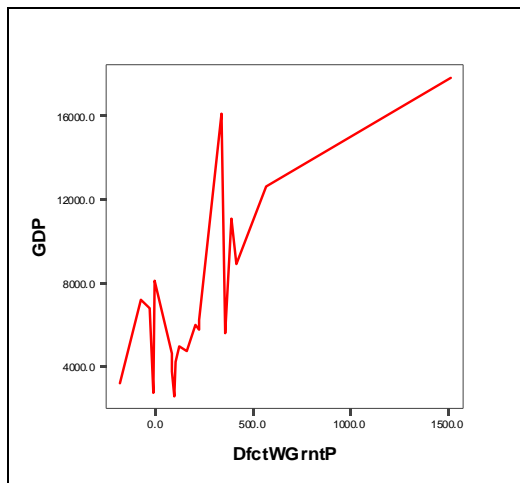


Figure (6) Scatter Plot of Government Fiscal Deficit after Grants (DfctWGmnt) Against Gross Domestic Product (GDP) during the Period 1990 to 2009

As mentioned before, there are two opposing views about the relationship between the fiscal deficit and growth rate. The first one argues that fiscal deficit has a “crowding in” phenomenon effect, particularly in developing countries, while the second view advocates that high fiscal deficit is pre-empting domestic savings and discouraging private investment, resulting in a “crowding out” [17].

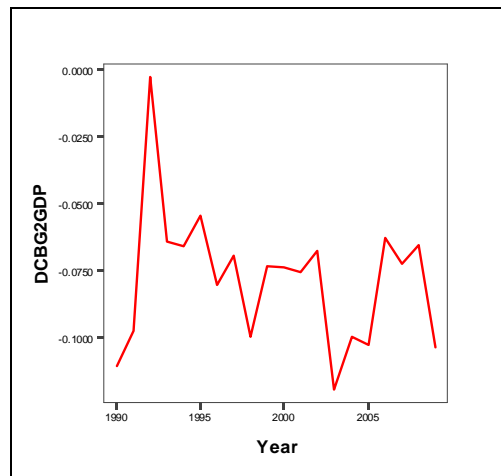


Figure (7) Government Fiscal Deficit before Grants as a Share of Gross Domestic Product at Market Prices during the Period 1990 to 2009 (DCB2GDP, %)

For Jordanian data, the correlation between GDP and fiscal deficit after grants is about 77% (92% before grants) and both

are significant at 1% level of significance. To quantify such relationship, this study estimates a simple linear regression, by using SPSS, such that GDP growth is a function of fiscal deficit as a percentage of GDP. Firstly fiscal deficit before grants, and secondly, fiscal deficit after grants, as follows:

$$\text{GDPbg} = 0.111 + 0.443 \text{ GCFg} + 0.09 \text{ DCBG/GDPm} \quad (1)$$

(2.141**) (1.881***) (0.384)

R-Square = 23.4%

Adjusted R-Square = 13.8%

F-statistics = 2.439, Sig. = 11.9%

Durban-Watson = 1.553

Where:

GDPb = Gross Domestic Product (Nominal at Basic Prices)

GDPm = Gross Domestic Product (Nominal at Market Prices)

GCF = Real Gross Capital Formation

DCBG = Cash Deficit before Grants

g = Growth Rate

t-statistics between parentheses. Bold statistics are significant.

* significant at 1% or less.

** significant at 5% or less.

*** significant at 10% or less.

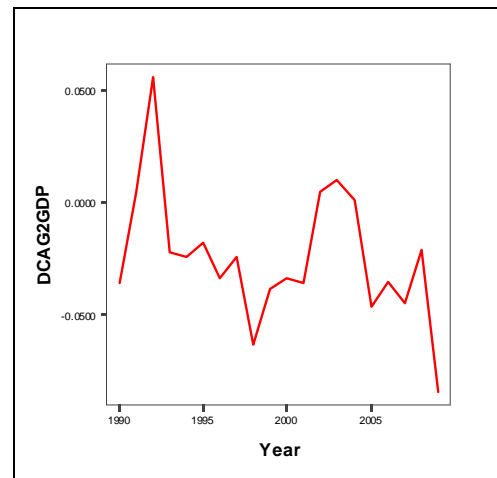


Figure (8) Government Fiscal Deficit after Grants as a Share of Gross Domestic Product at Market Prices during the Period 1990 to 2009 (DCA2GDP, %)

Unexpectedly, equation (1) produces a positive correlation, though a weak and insignificant one, between GDP growth and fiscal deficit before grants as a percentage of GDP. However, fiscal deficit after grants yields a negative correlation, and once again a weak and insignificant one, with GDP growth, as shown in equation (2):

$$\text{GDPbg} = 0.078 + 0.575 \text{ GCFg} - 0.212 \text{ DCAG/GDPm} \quad (2)$$

(3.439*) (2.367**) (-0.872)

R-Square = 26.2%

Adjusted R-Square = 16.9%

F-statistics = 2.836***, Sig. = 8.8%

Durban-Watson = 1.941

These results could not be used to neither validate nor cancel the argument that fiscal deficit has a negative or positive effect on economic growth. However, further investigation is required to examine the long run relationship between GDP and fiscal deficit.

To avoid non-stationarity problem, the logarithm of both variables is used. The second model of this study estimates a time-series autoregressive regression, using SPSS, such that:

$$\text{LogGDPbg} = 2.488 + 0.384 \text{ LogGCF} + 0.014 \text{ LogDCBG} + 0.988 \text{ AR (1)} \quad (3)$$

(5.502*) (3.452*) (0.713)
(42.391*)

R-Square = 9.9%

Adjusted R-Square = 3.6%

Log-Likelihood = 34.868

Akaike's Info Criterion (AIC) = -61.737

Schwarz's Bayesian Criterion (BIC) = -57.754

The Rho (AR1) parameter estimate and the regression parameter estimate are asymptotically uncorrelated.

Surprisingly, the results of equation (3) are similar to those of equation (1), particularly in that a weak and insignificant positive correlation between fiscal deficit before grants and GDP growth is pertained.

Once again, fiscal deficit after grants is used, and the resulted model is presented in equation (4):

$$\text{LogGDPbg} = 2.523 + 0.391 \text{ LogGCF} - 0.006 \text{ LogDCAG} + 0.987 \text{ AR (1)} \quad (4)$$

(5.598*) (3.364*) (-)
0.367) (42.155*)

R-Square = 13.3%

Adjusted R-Square = 3.7%

Log-Likelihood = 34.638

Akaike's Info Criterion (AIC) = -61.276

Schwarz's Bayesian Criterion (BIC) = -57.294

The Rho (AR1) parameter estimate and the regression parameter estimate are asymptotically uncorrelated.

Once again, equation (4) shows that fiscal deficit after grants yields a weakly and insignificantly negative correlation with GDP growth. It seems that in conditions of unemployed resources and growing demand, an increase in public expenditure, even when it increases the fiscal deficit, squeezing the negative impact and resulting in the positive impact of "crowding in". However, in all models above, capital formation (GCF) significantly contributes to the economic growth in Jordan.

As a response to the GFC, governments of different countries have adopted an unprecedented fiscal stimulus package. Jordan, also, put through various fiscal stimulus packages to immunize the economy from GFC Tsunami. These have been largely in the form of eliminating and

reducing sales taxes and duties on basic goods and, to a large extent, reducing income tax on financial and non-financial public shareholding corporation, while imposing a new income tax on agriculture sector and all private companies. As we have seen in the analysis above, fiscal deficit has been expanded beyond acceptable levels, pushing up public expenditure to a new historical level. This expansion, concurred with the global recession, helped Jordan overcome the negative impact of the crisis, in the short-term. Fiscal adjustment is urgently needed, especially for countries like Jordan with relative high debt.

V. CONCLUSION

The influence of fiscal deficit on economic growth is a much disputed issue, both in theory and in the Jordanian context. The Keynesian approach advocates the positive impact, Classical and Neo-Classical ones support the negative impact, while the Neo-Ricardian believes in the neutral effect of fiscal deficit. Definitely, the need for fiscal balance, sustainability and growth continue to be the key macroeconomic issues confronting Jordan policy makers. This study tried to comprehend Jordan's fiscal situation before and after the GFC, its likely future development, and its collision on the economy in the context of a weak global recovery from the current crisis. It provided a closer look at fiscal and economic variables trends and patterns over the last two decades.

The effect of GFC on Jordanian economy was clear. Growth decelerated to 11% in 2009, but still financed by both domestic and foreign debt. The effect of GFC on budget is also obvious, as the deficit ratios have not reached such high levels since the beginning of the Structural Program in 1990s. This mirrored in rising public debt levels, particularly domestic debt, after GFC, however, decreasing relative to GDP. In fact, there is little consensus about the ideal ratio of debt to GDP ratio. Jordanian Law determines 60%, while it is 65% in 2010, and budget estimates for 2010 and 2011 show higher deficits, combined with lower level of economic growth than in 2009. Since the budget deficit is always the core variable for increasing public debt in Jordan, the ratio of debt to GDP is expected to increase further. Total tax revenue as a proportion of GDP declined in 2009. Tax receipts increased sharply as a result of the rationalization of the tax structure 1992, but grew slowly, while non-tax declined sharply after GFC. The government should adopt a goods and services tax regime, so that taxes imposed on final goods and services. This would unify the tax regime and avoid tax arbitrage that currently disturbs investment decisions. Fiscal health depends on both revenues from taxes as well as constitutional receipts. The weakening in the fiscal situation of the governments has affected public sector savings and investment.

The relationship between fiscal deficit and GDP is structural rather than cyclic. There is an upward linear trend exhibited

throughout the study period implying a positive relation between fiscal deficit and output growth. However, the empirical findings of this study produce a weak insignificant positive (negative) correlation between GDP growth and fiscal deficit before (after) grants, in the short term and long-term alike. This result could not be used to neither validate nor cancel the argument that fiscal deficit has an effect on economic growth. Therefore, this supports the Neo-Ricardian viewpoint.

At present, the Jordanian economy is on a cyclical slowdown after a four-year boom (2005-2008). There are reasonable expectations that the economy will go for another phase of this slowdown (2012-2013). The impact of the GFC on Jordan has been gradual and considerable in terms of fiscal deficit and the GDP growth rate, although Jordan did not have direct exposure to sub-prime assets. Arab Spring (regime change in Tunisia, Egypt and Libya; and uprising in Syria) blows foreign direct investment out and evaporates consumer confidence. The Jordanian policy response has been prompt in the form of monetary easing and fiscal expansion. However, this has sharply reversed the steady fiscal improvement over the past four years and weakened public finance significantly. This phase of fiscal expansion has to be terminated to ensure economic stability and to rule out inflationary expectations which will adversely affect the future economic growth. Thus, an exit strategy will have to be carefully designed. The objective of which must be to minimize poverty and inequity and maximize gains from productive sectors.

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