

The Role of Budget Deficit in the Economic Growth of Pakistan

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Abstract

The basic aim of this paper is to investigate the relation between Budget Deficit and Gross Domestic Product of Pakistan. There are three views about this relation. Keynesian says that there is a positive relation between budget deficit and economic growth while neo-classical views that there is an inverse relation between budget deficit and economic growth. Recardian says that there is neutral relation between budget deficit and economic growth. A time series data for the period of 1971-2007 has been used to check the relation between budget deficit and economic growth of Pakistan. GDP is taken as dependent variable, FDI and budget deficit as independent variables. ADF test has been used to check the stationarity of the data. All variables get stationary at 5

Index terms— GDP, budget deficit, OLS, Pakistan.

1 Introduction

he basic aim of this paper is to investigate the relationship between Gross Domestic Product and budget deficit of Pakistan. Economic growth and economic development are two terms used together but they are different from each other. Economic development is the increase of the welfare of the society and economic growth is the increase in average income of that economy. Najid Ahmad (2012) shed light on the importance of investment for economic growth of Pakistan. He views that investment is necessary for economic growth. He says that one percent increase in investment will raise GDP by 0.89 percent. He suggests that government should spend most of its budget share on productive tasks as it will lead to economic growth. Government should encourage national and international investors who are positively contributing for the progress of the country. Najid Ahmad (2012) explores the relationship between GDP and energy consumption of Pakistan. He thinks Pakistan's economy as energy dependent. For his study he uses GDP as dependent variable and energy consumption as independent variable for the period of 1973-2006. He views one percent increase in energy consumption will raise GDP by 1.23 percent. He thinks energy consumption necessary for economic growth and for energy we should utilize our own resources like by constructing biogas plants and solar energy because these will reduce the foreign dependency.

Najid Ahmad (2012) finds trade as an engine for economic growth and development of Pakistan. He views that economic growth is hidden in trade liberalization. Trade liberalization reduces poverty and at another place he suggests economic growth in educational sector and finds positive relation between primary enrollment and economic growth of Pakistan. It is necessary to focus on our educational sector for the prosperity of the country. Najid Ahmad (2012) finds positive and significant relation between economic growth and exports of Pakistan. He used OLS techniques and says one percent increase in exports will raise GDP by 0.81 percent. The expansion of exports leads to economic growth and this expand growth will lead to more exports.

Budget deficit means the situation where the expenditures exceed its revenues. There are different views of the economists about the relationship between budget deficit and economic growth. Keynesian says there exists positive relationship between budget deficit and economic growth. On the other hand neo-classical are in a view that there is an inverse relationship between budget deficit and economic growth while Recardian says that there is neutral relation between budget deficit and economic growth. Nur Hayati (2012) explores the relationship between budget deficit and economic growth in Malaysia. She uses quarterly data for the period of 2000-2011 for

45 her analysis. She finds no relationship between budget deficit and economic growth in the long run. She suggests
46 policy that government should increase national income, per capita income and also there is need to improve
47 the quality of life so that Malaysia can be in the list of developed country till 2020. She says there is no role of
48 budget deficit on economic growth and the shocks in the Malaysian economy can be controlled with the help of
49 productive expenditures.

50 Bose (2007) finds positive relation between budget deficit and economic growth in 30 developing countries
51 while Ghali (1997) finds neutral relation between budget deficit and economic growth in Saudi Arabia. Kormendi
52 and Meguire (1985) find no relationship between these two variables. Here is Huynh ear () B (2007) who says
53 that there is negative impact of budget deficit on economic growth in Vietnam while Saleh (2003) concluded
54 by saying that budget deficit has diverse effect on GDP. Gohar Fatima (2012) finds negative relation between
55 budget deficit and economic growth of Pakistan. She suggests balance budget for economic growth. She says
56 that budget deficit is because of government short resources to meet expenses in the long run. Savings are not
57 enough to meet the expenses. Here is Yaya Kehe (2010) who finds the mix results about the relation of budget
58 deficit and economic growth in seven West African Countries. The author finds no causality between budget
59 deficit and economic growth in three countries and four countries show negative relation between budget deficit
60 and economic growth. Most governments' in Pakistan faced budget deficit because of lesser revenue and high
61 expenditures. Government can increase revenue by increasing taxes, using previous surplus. Government can
62 also print money and borrow it by using internal and external sources.

63 2 II.

64 3 Objectives

65 The basic aim of this paper is to investigate the relationship between budget deficit and economic growth of
66 Pakistan. There are different views of the economists about this relation. Some favor budget deficit and think
67 it beneficial for economic growth and some think surplus budget as a blessing for the economy. While some of
68 them views that there is no role of budget deficit in economic growth of the country.

69 4 III. Hypothesis

70 H 0 : There exists no relation between budget deficit and economic growth in Pakistan.

71 H 1 : There exists positive and significance relation between budget deficit and economic growth in Pakistan.

72 5 IV.

73 6 Methodology, Data Collection and Interpretation

74 A time series data has been used to check the relation between budget deficit and economic growth in Pakistan.
75 The time period is taken from 1971-2007. The data on these variables (GDP mls \$, FDI mls \$, Budget Deficit
76 mls \$) has been collected from world development indicator (WDI) and economics survey of Pakistan (various
77 issues). All variables have been converted into log form. The econometric model is given as: The results show
78 that foreign direct investment does not Granger Cause GDP and GDP does Granger Cause FDI. There is uni-
79 directional causality running from GDP to FDI. Null hypothesis is rejected at 5% level of significance. GDP does
80 Granger cause FDI as probability is 0.00198 and F-Statistic is 7.71700. P-value is less than 5% so null hypothesis
81 is rejected. Budget deficit does Granger cause GDP and GPD does Granger cause budget deficit (p-value is
82 less than 5%). There is bi-directional causality running from budget deficit to GDP and GDP to budget deficit.
83 The results also show that there is no causality between FDI and budget deficit. Keeping in view the above
84 results we can use OLS for our model. The results of Ordinary Least Squares Method are given in table 3. Here
85 Durbin-Watson stat is 1.88 that is good sign for our model. The R-squared is 0.116311 that means 12% variation
86 in dependent variable (GDP) are due to independent variables (FDI and budget deficit) and others are due to
87 error term. The coefficient C has positive sign (0.018633). The variable FDI has positive and significant relation
88 with dependent variable GDP. One percent increase in FDI will raise GDP by 0.12%. The variable budget deficit
89 (BD) has positive but insignificant relation with GDP of Pakistan. GDP*

90 V.

91 7 Conclusion

92 An attempt was made to find the relation between budget deficit and economic growth of Pakistan. GDP was
93 taken as dependent variable while budget deficit and FDI as independent variables. All variables get stationary at
94 5% level of significance at level. The results of Granger Causality test show that there is bi-directional causality
95 between GDP and budget deficit of Pakistan and uni-directional causality running from GDP to FDI. The results
96 of Ordinary Least Squares show that FDI has positive and significant relation with the gross domestic product
97 of Pakistan. One percent increase in FDI will raise GDP by 0.11%. There is need to invite foreign investors so
98 that our country can make progress. Government should encourage foreign investors by giving them incentive
99 and facilitation for the promotion of FDI in Pakistan. Political instability is the element that is harming FDI.
100 This factor should be kept in mind before making any policy. The OLS results show that there is positive but

101 insignificant relation between GDP and budget deficit. The results follow the Recardian approach who said that
 102 there is neutral relation between budget deficit and economic growth of the country. Budget deficit has no role
 in bringing the economy to its equilibrium. There are other factors that are affecting the GDP of Pakistan. ¹

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Variables ADF (t-critical)	level with intercept	
	T-Value	Probability
	value at 5% significance level	
D(GDP*)	-2.9499	0.0000
D(BD*)	-2.9499	0.0016
D(FDI*)	-2.9499	0.0009

Source: Author

All variables get stationary at 5% level of significance with intercept. So Ordinary Least Squares method can be used to check the relationship among the variables. Before applying the OLS I am using Granger Causality Test for the direction of the variables. The results of Granger Causality test are as:

Figure 1: Table 1 :

2

Lag 2: Null Hypothesis	Obs	F-Statistic	Probability
FDI * does not Granger Cause GDP*	35	1.95436	0.15927
GDP* does not Granger Cause FDI*		7.71700	0.00198
BD* does not Granger Cause GDP*	35	9.24649	0.00074
GDP* does not Granger Cause BD*		5.72021	0.00786
BD* does not Granger Cause FDI*	35	1.72818	0.19482
FDI* does not Granger Cause BD*		1.76868	0.18788

Source: Author

Figure 2: Table 2 :

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Dependent Variable: D(GDP*)

Method: Least Squares

Sample(adjusted): 1972-2007

Included observations: 36 after adjusting endpoints

Variable	Coefficient	Std.Error	t- statistic	Prob
C	0.018633	0.009895	1.882987	0.0685
D(FDI*)	0.117738	0.059331	1.984420	0.0556
D(BD*)	0.024375	0.063215	0.385596	0.7023
R-squared	0.116311	Mean.dependent.var		0.029349
Adjusted R-squared	0.062754	S.D.dependent var		0.052390
S.E. of regression	0.050720	Akaike info crite- rion		-3.045355
Sum squared resid	0.084892	Schwarz criterion		-2.913396
Log likelihood	57.81640	F-statistic		2.171734
Durbin-Watson stat	1.881778	Prob(F-statistic)		0.129998

Source: Author

Figure 3: Table 3 :

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