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The Relationship between Budget Deficit and Economic Growth: A Study on Bangladesh

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Abstract

The relationship between budget deficits and different macroeconomic indicators (such as GDP, investment, sector wise share in GDP, exchange rate) represents one of the most controversial issues among economists in both developed and developing countries. The main aim of this paper is to examine the relationship between budget deficit and economic growth in Bangladesh. There are three views about this relationship. According to Keynesian, there is a positive relationship between budget deficit and economic growth; while neo-classical views that there is a negative relationship between budget deficit and economic growth. Recardian theory regarding budget deficit says that there is neutral relationship between budget deficit and economic growth. A time series data for the period of FY1999-01 to FY2014-15 has been used to check the relationship between budget deficit and economic growth of Bangladesh. To achieve sustainable economic growth of a country balanced budget is not only important but also indispensable. In this study the post effects of budget deficit have been analyzed. Budget deficit has been selected as independent variable and GDP, investments, exchange rate(Taka/Dollar), domestic debt, domestic financing, per capita GNI and domestic savings have been chosen for dependent variables. For the study different statistical tools have been used such as mean, standard deviation, regression analysis, p values and F test. SPSS 16.0 has been used for the analysis of the relationship between dependent and independent variables. The study reveals that GDP, sector wise shares of industry in GDP, investments and savings have significant relationship with budget deficit, but exchange rate fluctuation is not influenced significantly by budget deficit.

Keywords: economic growth, government budget deficit, macroeconomic indicators, Bangladesh

Introduction

The economy of Bangladesh is currently going through a period of continuous budget deficit. The term budget deficit usually applies to governments in a situation when spending exceeds income and urges the government either to print more money, to levy more tax, or to borrow from the public to finance this deficit. The impact of budget deficit is still under much controversy worldwide. Therefore, this paper aims to examine whether the budget deficit is beneficial, detrimental or insignificantly influential to the economic growth in Bangladesh. According to the recent data the government of Bangladesh is facing budget deficit, on average, almost 5% of the country's total GDP since the early 2000s. The overall budget deficit has widened in recent years.

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It was 4.2 per cent of the GDP in the financial year 2014-15. But it never crossed 5.0 per cent by official count. The gap between the total expenditure and total revenue is increasing over the years. Due to the slower rate of collection of revenue as compared to the total expenditure, more borrowing and foreign loans are required to finance the budget deficit. From a neoclassical perspective, budget deficits increase current consumption in the short run but result in a long-term decline in private investment. On the contrary, Keynesian economists point out the "crowding-in" effect results from the outward shift of the aggregate demand curve, especially when the economy is at less than full employment government deficit spending raises a country's domestic production, which in turn encourages businesses to invest more. In contrast to the neoclassical and Keynesian views, the Ricardian equivalence theory states that government deficits have no influence over macroeconomic conditions. Impact of budget deficit basically depends on the sources and uses of deficit fund.

In recent years Bangladesh government is heavily borrowing from banking system. Government borrowing from banking system was targeted at BDT 440 billion taka in FY 2016-17 that is 45.24 percent of total budget deficit of Tk. 972.50 billion. Of the estimated overall deficit, Tk. 663.80 billion will be met by borrowing from domestic sources while the Tk. 308.70 billion from external sources. The internal deficit financing comprises Tk 440 billion estimated to be borrowed from the banking system and Tk. 200 billion from national saving certificates, national saving bonds and postal savings. This level of budget deficit is large for an economy like Bangladesh. Budget deficit has been on an upturn in recent years as the size of the budget far outstrips the growth in tax revenues. The rate of growth in total revenues in terms of the GDP remained around 10.0 per cent for many years now.

Although Bangladesh consistently depends on deficit budget, there is very little amount of empirical study conducted to find out the economic impact of budget deficit. This study will make an effort to find out the relationship of different macroeconomic indicators with the deficit financing policy of the government empirically.

Research question

For the study the following research questions have been set;
RQ_1: Does the effect of budget deficit influence the economic growth of our country?
RQ_2: Is the budget deficit related with the selected variables significantly?

Literature Review

Generally, there are controversial thoughts on the relationship between budget deficit and economic growth. While the Keynesian economies argued that there is positive relationship between these two series, the new classical economies argued the opposite. Meanwhile, the Ricardian equivalence hypothesis claimed that there is neutral relationship between budget deficit and economic growth (Briotti, 2005).

According to Sill (2005) the expenditure of an entity, which exceeds the earning or income it has, is termed as budget deficit. In the absence of financing from external sources the deficit carry forward to next financial year. Budget deficit or budget surplus is one of the most important macroeconomic factors that has an impact on economic growth (Fischer, 1993). Budget deficit or surplus is a result of fiscal policy of a government. As Fischer (1993) indicated it is not easy to use budget deficit as a representative of fiscal policy or to estimate the impact of fiscal policy effect by using only budget deficit. However, it is one of the most reliable and measurable indicators which has an impact on economic growth.

Budget deficit is not always considered as a bad thing. The negative impact of the budget deficit on the economic growth occurs when governments are short of the resources to meet their expenses in the long run. Their savings as well as revenues are not enough to meet their expenses. Fatima, G., Ahmed, M. and Rehman (2012) stated in their paper that different development projects started by the governments on the one hand increase their growth, but on the other hand make the administration in jeopardy to meet the actual expenses (including some unforeseen expenses). A country's economic condition is influenced by the actions of the Government. Deficit is believed to trigger high tax rates, which can decrease productivity and deter private investment. On the other hand, deficit spending is assumed to complement business investment and stimulate economic productivity. Based on the fixed-effects model, Van, V.B. and Sudhipongpracha, T. (2015) showed that the Vietnamese national government deficits had no obvious direct influence over the country's economic progress. Instead, the FDI inflows served an important role in Vietnam's economic expansion.

Different studies, for example the World Economic Outlook, (IMF, 1996) concluded that during the mid-1980s a group of developing countries with high fiscal imbalances had significantly lower economic growth than countries with low to medium budget deficits. According to Shojai (1999), deficit spending that is financed by the central bank can also lead to inefficiencies in financial markets and cause high inflation in the developing countries. According to Saleh (2003), the relationship between budget deficits and inflation showed strong evidence that the budget deficit financed through monetization and a rising money supply could lead to inflation.

Dao, B.T. (2013) showed in his paper that budget deficit is found to have negative but insignificant effect on economic growth rate, which corresponds to Ricardian equivalence theory of no relationship between these two variables. In addition, it is found that the differences in classifying budget deficit create different short-run Granger causality among the variables. Kreiter and Paul (2010) found in their study that the budget deficit is sometimes responsible for increase in price level (demand pull or cost push). But in our country the influence of controlling money supply for the purpose of controlling inflation cannot be justified as there are other reasons that influence the inflation rate considerably. This paper analyzed the fiscal deficit-CPI inflation relationship in the context of Bangladesh using the ARDL co-integration approach suggested by Pesaran and Shin (1995) based on annual data for the period 1974-2010.In her study Afrin (2014) found that fiscal deficits have inflationary effects in the long run and together with this factor, real GDP, inflation expectations and the current floating exchange rate regime also affect the inflation dynamics of Bangladesh.

Moreover, Stoker (1999) among others has concentrated on the relationship between the budget deficit and the exchange rate. Some of these studies, such as Bisignano and Hoover (1982), argue that deficits may appreciate or depreciate the exchange rate, depending on the relative importance of wealth effects and relative asset substitution effects.Some of these studies, such as Premchand (1984), asserted that financing the budget deficit by borrowing from the public implies an increase in the supply of government bonds. In order to improve the attractiveness of these bonds the government offers them at a lower price, which leads to higher interest rates. The increase in interest rates discourages the issue of private bonds, private investment, and private spending. In turn, this contributes to the financial crowding out of the private sector. Aschauer, (1989), Heng (1997) argued that higher public investment may raise the marginal productivity of private capital and, thereby, "crowd-in" private investment. Some of these studies, such as Aschauer (1989), argued that public capital, particularly infrastructure capital such as highways, water systems, sewers, and airports, is likely to bear a complementary relationship with private capital. Hence, according to Aschauer (1989) higher public investment may raise the marginal productivity of private capital, and, thereby, "crowd in" private investment.

Rana and Wahid (2017) conducted a time-series analysis using ordinary least squares estimation, vector error correction model, and granger causality test. The findings suggested that the government budget deficit has statistically significant negative impact on economic growth in Bangladesh. Aworinde (2013) examined the effects of budget deficits on the current account imbalance and inflation in African countries. He basically focused on the twin deficit issue. He used VAR, Threshold Co-integration and ARDL approach to find the results and concluded that positive government deficit shock increases the current account deficit in Botswana, Egypt, Ethiopia, Ghana, Morocco, South Africa and Tanzania. This result is consistent with the Keynesian absorption theory that increase in the fiscal deficits would induce domestic absorption.Hassan and Akhter (2014) showed the relationship between budget deficit and economic growth in the case of Bangladesh. An augmented Dickey-Fuller (ADF) and Johansen Co-integration test had been used for time series diagnosis and according to the results of diagnostic tests, Vector Error Correction Model (VECM) had been used. Empirical result showed statistically significant negative effect of budget deficit over economic growth of Bangladesh i.e. GDP growth rate, which conforms with many other developing countries of the world. Labonte (2012) studied the impact of budget deficit over the economy in USA focusing on the market confidence and emphasized over the impact of large but manageable budget deficit on economy. Eminer (2015) studied the impact of budget deficit on economic growth in North Cyprus. The researcher selected Budget Deficit as dependent variables and Productive spending and Non-productive spending as independent variables for the study.

As Brender and Drazen (2008) explained in his study developing countries vote for expansionary fiscal policy, however developed countries vote for low inflation. But high government spending or budget deficit does not always result with negative impact on the economy. If the budget expenditure is too high and if the government use it for productive purposes and not for political interest then the budget deficit could result with economic growth (Gupta et. al., 2005).

Ahmed (2013) investigated the relation between Budget Deficit and Gross Domestic Product of Pakistan in which GDP is taken as dependent variable and FDI and budget deficit as independent variables. The results followed the Recardian approach who said that 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. Ramzan et al. (2013) explored the impact of budget deficit on economic growth in Pakistan in which researchers used Time Series data for 30 years(1980 to 2010). The study was designed to find how the taxes are contributing toward the economic growth of Pakistan. The paper showed that there is a non-linear relationship between dependent variable GDP and independent variables inflation and investment and linear relationship exists between GDP, budget deficit and domestic credit. Risti, Nicolaescu and Tagaduan (2013) analyzed the mutual impact between the budget deficit and the economic growth. They selected Real GDP growth rate as dependent variable and consolidated general budget account as an independent variable. Gale and Orszag (2003) showed the economic effects of budget deficit like as paper showed that long-term budget deficits reduce national saving and impose substantial long-run costs on the economy, regardless of whether interest rates are affected and reduction in future income is the true cost of sustained budget deficits.

Objectives of the study

- To focus on the effect of budget deficit the economic growth of Bangladesh
- To show the individual relationship of budget deficit with some selected macroeconomic indicators of Bangladesh.
- To show the trend of the change of budget deficit with some selected macroeconomic indicators of Bangladesh.

Methodology

Data collection and data type

The study is quantitative in nature. For the study secondary data has been used to analyze the scenario. 7 years data from 2008-09 to 2014-15 has been collected from websites and different publications.

Instrumentation

For the study to show the post effect of budget deficit the following variables are selected as a dependent variables;

- GDP (at current market prices) (billion Taka)
- Overall deficit (including grants)
- Exchange rate (Taka/Dollar)
- Investment
- Domestic Savings
- Net domestic financing
- Domestic debt
- Per capita GNI in current market price

For all of the dependent variables **budget deficit** has been considered as an independent variable.The inclination of budget deficit has been shown with other selected variables. The SPSS 16.0 has been used for analysis. Different statistical tools like as t-test, F-test, R^2, regression analysis etc. have used to justify the study.

Research Hypothesis

H_0: There is no significant relationship between budget deficit and selected variables.

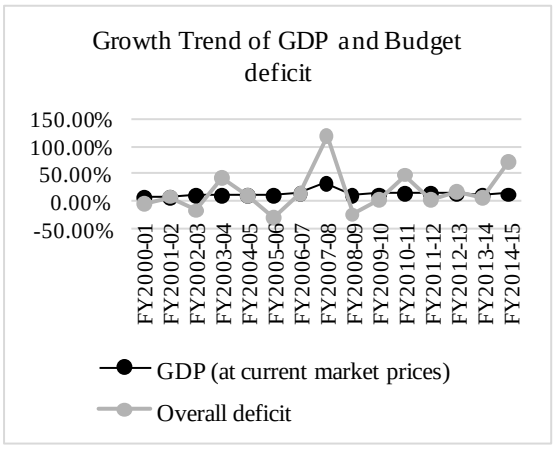
H_1: There is a significant relationship between budget deficit and selected variables.

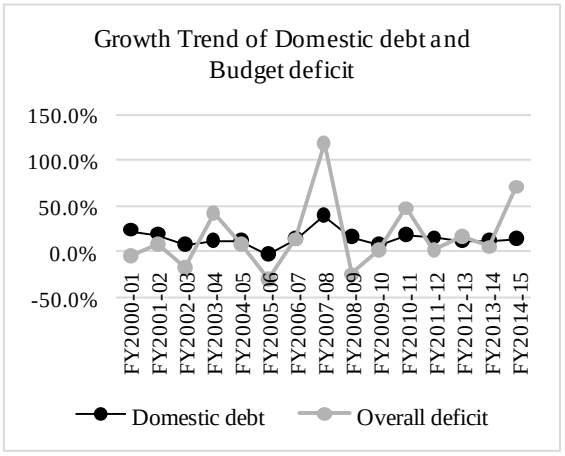
Analysis and findings

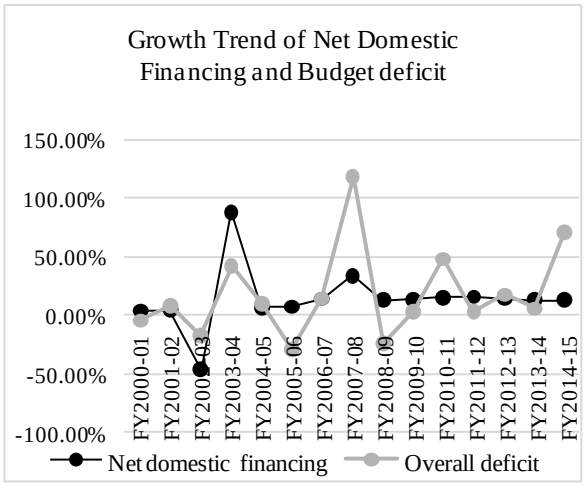
Time series analysis

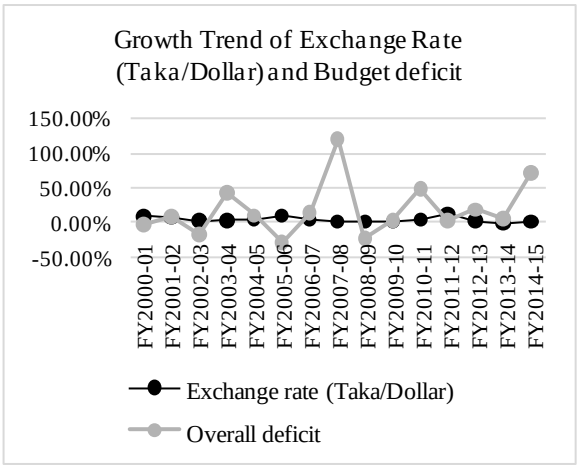
Following graphs are showing the recent growth trend of each variable from FY2000-01to FY2014-15.

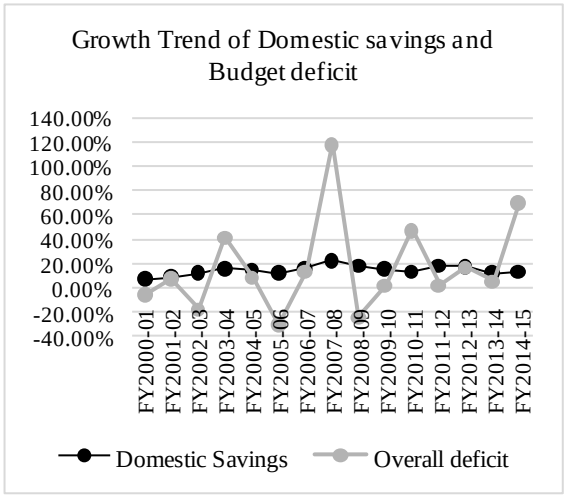
Figure 1: Relationship of budget deficit with each of the variables

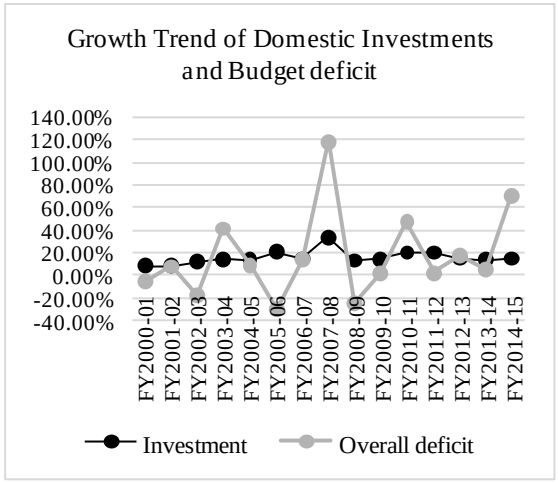


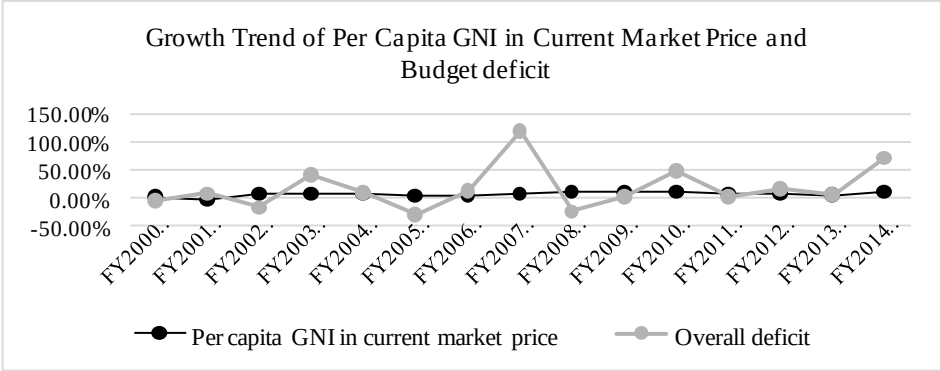












The graphs show the recent trend of budget deficit with other selected variables. From the above figures, we can see that budget deficit suddenly increases 118.60% in FY2007-08 from FY2006-07. At the same time GDP, investment and domestic financing increased at the same rate which is 33.06%. The growth rate of all the other variables increased substantially during that time except exchange rate (taka/dollar).

Regression analysis

The following scenario has been found from regression analysis (Annexure III);

Table I: Results of SPSS analysis

Dependent variable	**Independent variable**	**N**	**t**	**Sig.**	**F**	**Sig.**
GDP (at current market prices) (billion Taka)	Budget deficit	7	18.910	.000	357.601	.000
Exchange rate (Taka/Dollar)	Budget deficit	7	2.902	.034	8.420	.034
Savings	Budget deficit	7	18.335	.000	336.164	.000
Investments	Budget deficit	7	18.938	.000	358.645	.000
Per Capita Income	Budget deficit	7	17.569	.000	308.681	.000
Domestic Debt	Budget deficit	7	20.871	.000	435.604	.000
Domestic financing	Budget deficit	7	18.910	.000	357.601	.000

Table II: Results of regression analysis

Dependent variable	**Independent variable**	**R^2**	**D test**	**Unstandardized Coefficients(B)**	**Standard error**	**Relationship**
GDP (at current market prices) (billion Taka)	Budget deficit	0.986	2.672	22.625	1.196	Positive
Exchange rate (Taka/Dollar)	Budget deficit	0.627	1.203	0.030	0.010	Positive
Savings	Budget deficit	0.985	2.487	5.487	0.299	Positive
Investments	Budget deficit	0.986	2.589	7.150	0.378	Positive
Per Capita Income	Budget deficit	0.984	2.194	0.000	0.000	Positive
Domestic Debt	Budget deficit	0.989	2.763	0.453	0.024	Positive
Domestic financing	Budget deficit	0.986	2.672	0.453	0.024	Positive

Budget deficit is a significant variable influencing output growth rate. This variable is noted by some studies to be especially significant for most developing countries. In general very high levels of budget deficit may undermine economic growth. However if the budget deficit is low, stable and sustainable, it may be interpreted as an increased demand for goods and services. And if the economy is below its equilibrium on Keynesian cross, higher budget deficit, that is increased government expenditures, should stimulate growth. Consequently we expect to get positive relationship with output growth.

GDP and BD: According to the table, R square (R2) is 0.986. It means that there is 98.6% impact of the independent variable (budget deficit) on the dependent variable (gross domestic production). Because p-value is less than .05, the result is statistically significant, so there was a significant effect of budget deficit on GDP. Since the value of significance of F-ratio is .000, so the effects would be statistically significant too. Usually the value of significance of F-ratio is set at .05 and any value less than this will result in significant effects. Finally, since the

unstandardized coefficient (B) is 22.625, so the impact of budget deficit over GDP is significantly positive.

Exchange rate (Taka/Dollar) and BD: According to the table, R square (R2) is 0.627. It means that there is 62.7% impact of the budget deficit on the exchange rate (Taka/Dollar). As p-value is .000 which is definitely less than .05, the result is statistically significant, so exchange rate (Taka/Dollar) is significantly affected by budget deficit. Since the value of significance of F-ratio is .034, so the effects would be statistically significant too. Finally, since the unstandardized coefficient (B) is .030, so the relation between Exchange rate (Taka/Dollar) and budget deficit is positive.

Domestic Savings and BD: According to the table, R square (R2) is 0.985. It means that there is 98.5% impact of the budget deficit on the domestic savings. As p-value is .000 which is definitely less than .05, the result is statistically significant, so domestic savings is significantly affected by budget deficit. Since the value of significance of F-ratio is .000, so the effects would be statistically significant too. Finally, since the unstandardized coefficient (B) is 5.487, so the relation between domestic savings and budget deficit is positive.

Investments and BD: According to the table, R square (R2) is 0.986. It means that there is 98.6% impact of the budget deficit on the investments. As p-value is .000 which is definitely less than .05, the result is statistically significant, so investment is significantly affected by budget deficit. Since the value of significance of F-ratio is .000, so the effects would be statistically significant too. Finally, since the unstandardized coefficient (B) is 7.150, so the relation between investments and budget deficit is positive.

Per Capita Gross National Income and BD: According to the table, R square (R2) is 0.984. It means that there is 98.4% impact of the budget deficit on per capita GNI. As p-value is .000 which is definitely less than .05, the result is statistically significant, so per capita GNI is significantly affected by budget deficit. Since the value of significance of F-ratio is .000, so the effects would be statistically significant too. Finally, since the unstandardized coefficient (B) is .000, so the relation between per capita GNI and budget deficit is positive, but the impact of budget deficit over PCGNI is not strong.

Domestic Debt and BD: According to the table, R square (R2) is 0.989. It means that there is 98.9% impact of the budget deficit on domestic debt. As p-value is .000 which is definitely less than .05, the result is statistically significant, so domestic debt is significantly affected by budget deficit. Since the value of significance of F-ratio is .000, so the effects would be statistically significant too. Finally, since the unstandardized coefficient (B) is .453, so the relation between domestic debt and budget deficit is positive.

Domestic financing and BD: According to the table, R square (R2) is 0.986. It means that there is 98.6% impact of the budget deficit on domestic financing. As p-value is .000 which is definitely less than .05, the result is statistically significant, so domestic financing is significantly affected by budget deficit. Since the value of significance of F-ratio is .000, so the effects would be statistically significant too. Finally, since the unstandardized coefficient (B) value between domestic financing and bd is .453, so the relation between domestic financing and budget deficit is positive. So we can come to the conclusion that budget deficit has significant impact on domestic financing.

Multiple regression analysis

The multiple regressions have been done by using the growth rate of each variable from FY 1999-00 to FY 2014-15 (Annexure I).

Table III: Results of SPSS analysis

Independent variable	**Dependent variable**	**N**	**t**	**Sig.**	**F**	**Sig.**	**R^2**	**D test**	**Beta**	**Relationship**
GDP at Current Market Price	Budget deficit	15	0.571	.586	4.519	0.032	0.819	1.982	6.486	Positive
Investment		15	-0.155	.881					-1.262	Negative
Per capita GNI in current market price		15	0.871	.413					3.031	Positive
Exchange rate (Taka/Dollar)		15	-0.277	.790					-1.015	Negative
Domestic debt		15	1.675	.138					0.543	Positive
Domestic Savings		15	-1.180	.277					-5.997	Negative
Domestic debt		15	0.649	.537					1.156	Positive

The results show that the joint impact of independent variables is moderately significant as the p value is lower than 5%. But individually none of these variables influence budget deficit significantly as p values of t-test for the each dependent variables are higher than 5%. From the result we can understand that because of the crowding out effect of budget deficit, higher interest rates lead to less private investment which is true in the case of Bangladesh too. In the case of domestic debt, we can see that there is a positive relationship between budget deficit and domestic debt which was expected. Although a higher budget deficit implies higher domestic savings, but from the multiple regression, it shows a negative relationship between budget deficit and domestic savings.

Conclusion

The correlation between budget deficit and economic growth has been a source of contention by various economists for many years. This is mainly because budget deficit has serious implication on the general welfare of citizens of a particular nation. This brings a lot of challenges to budget planners of a particular government. To conclude the study it can be said that budget deficit has significant impact over all of the selected macroeconomic variables. It definitely influences the economic growth of a country. The paper is based on only secondary data which is one of the major limitations of the study. The paper shows each selected variables is affected due to budget deficit. The joint impact of all the variables over the budget deficit growing trend has also been identified through the multiple regressions analysis which is moderately significant. More research can be done by showing the impact of budget deficit over the other macroeconomic variables like as interest rates, inflation and so on and also research can be done to find out the ways to minimize the budget deficit amount year by year.

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Annexure-I: Growth percentages of variables

Year	Budget Deficit	GDP	Investment	Per capita GNI in current market price	Exchange rate (Taka/Dollar)	Domestic debt	Domestic Savings	Domestic debt
FY2000-01	-4.94%	6.94%	7.41%	2.38%	7.26%	3.25%	7.54%	23.4%
FY2001-02	7.75%	7.75%	8.22%	-2.33%	6.43%	3.90%	8.95%	19.2%
FY2002-03	-17.48%	10.02%	10.97%	7.14%	0.82%	-47.03%	12.44%	8.0%
FY2003-04	41.55%	10.78%	13.62%	8.89%	1.80%	87.47%	16.14%	11.5%
FY2004-05	8.91%	11.33%	13.19%	8.16%	4.16%	6.27%	15.33%	12.0%
FY2005-06	-30.22%	12.14%	19.96%	5.66%	9.27%	6.80%	12.70%	-2.8%
FY2006-07	13.65%	13.65%	14.09%	5.36%	2.86%	13.65%	16.45%	13.7%
FY2007-08	118.60%	33.06%	33.06%	8.47%	-0.58%	33.06%	22.82%	39.6%
FY2008-09	-24.42%	12.15%	12.15%	10.94%	0.29%	12.15%	18.58%	15.9%
FY2009-10	2.17%	13.12%	13.55%	9.86%	0.58%	13.12%	15.90%	7.3%
FY2010-11	47.64%	14.83%	19.63%	11.54%	2.89%	14.83%	13.73%	18.7%
FY2011-12	2.42%	15.22%	19.00%	8.05%	11.10%	15.22%	18.57%	15.2%
FY2012-13	17.17%	13.62%	14.02%	7.45%	1.01%	13.62%	17.91%	12.9%
FY2013-14	5.28%	12.07%	12.86%	5.94%	-2.63%	12.07%	12.58%	11.3%
FY2014-15	70.79%	12.65%	14.22%	11.21%	-0.13%	12.65%	13.67%	14.1%

Annexure-II 5-year data of variables

Year	Budget deficit	GDP	Investment	Per capita GNI	Exchange rate	Domestic financing	Domestic savings	Domestic debt
2001	**121.704**	**2535.5**	**585.7005**	**430**	**53.96**	**70.994**	**456.39**	**380.325**
2002	**131.136**	**2732**	**633.824**	**420**	**57.43**	**73.764**	**497.224**	**453.512**
2003	**108.2088**	**3005.8**	**703.3572**	**450**	**57.9**	**39.0754**	**559.0788**	**489.9454**
2004	**153.1662**	**3329.7**	**799.128**	**490**	**58.94**	**73.2534**	**649.2915**	**546.0708**
2005	**166.8195**	**3707.1**	**904.5324**	**530**	**61.39**	**77.8491**	**748.8342**	**611.6715**
2006	**116.4044**	**4157.3**	**1085.0553**	**560**	**67.08**	**83.146**	**843.9319**	**594.4939**
2007	**132.2944**	**4724.8**	**1237.8976**	**590**	**69**	**94.496**	**982.7584**	**675.6464**
2008	**289.1928**	**6286.8**	**1647.1416**	**640**	**68.6**	**125.736**	**1207.0656**	**943.02**
2009	**218.5717**	**7050.7**	**1847.2834**	**710**	**68.8**	**141.014**	**1431.2921**	**1092.8585**
2010	**223.3112**	**7975.4**	**2097.5302**	**780**	**69.2**	**159.508**	**1658.8832**	**1172.3838**
2011	**329.6988**	**9158.3**	**2509.3742**	**870**	**71.2**	**183.166**	**1886.6098**	**1392.0616**
2012	**337.664**	**10552**	**2986.216**	**940**	**79.1**	**211.04**	**2237.024**	**1603.904**
2013	**395.6436**	**11989.2**	**3404.9328**	**1010**	**79.9**	**239.784**	**2637.624**	**1810.3692**
2014	**416.5377**	**13436.7**	**3842.8962**	**1070**	**77.7**	**268.734**	**2969.5107**	**2015.505**
2015	**711.392**	**15136**	**4389.44**	**1190**	**77.7**	**302.72**	**3375.328**	**2300.672**

Annexure-III: Data used for SPSS analysis

BUDDEF	DOMDEBT	DOMFIN	GDP	INV	IND	EXC	SAVE	PCI
305.80	141.014	141.014	7050.7	1847.283	1450.0	68.8	1431.292	0.052193
343.58	159.508	159.508	7975.4	2097.5302	1552.0	69.2	1658.883	0.058332
393.23	183.166	183.166	9158.3	2509.3742	1692.0	71.2	1886.61	0.066044
452.04	211.04	211.04	10552.0	2986.216	1851.6	79.1	2237.024	0.075505
520.68	239.784	239.784	11989.2	3404.9328	2030.1	79.9	2637.624	0.084283
550.32	268.734	268.734	13436.7	3842.8962	2195.7	77.8	2969.511	0.092015
675.52	302.72	302.72	15136.0	4389.44	2406.6	77.7	3375.328	0.102236