The Impact of Fiscal Deficit on Economic Growth in India: An Economic Analysis

Dr. Sanjeev Kumar
Assistant Professor, Department of Economics,University of Lucknow, Lucknow (UP) - 226007, INDIA

Paper Code : JCT-O19-SK
DOI : https://doi.org/10.26703/JCT.v14i2-10
Web Address : http://www.jctindia.org/october2019/v14i2-10
Archive : https://ideas.repec.org/a/jct/journl/v14y2019i2p67-71.html
http://EconPapers.repec.org/RePEc:jct:journl:v:14:y:2019:i:2:p:67-71
Similarity : 12 percent

How to Cite: Kumar, Sanjeev (2019). The impact of Fiscal Deficit on Economic Growth in India : An Economic Analysis. *Journal of Commerce and Trade* (H. Agarwal, Ed.) *14* (2), 67-71.
https://doi.org/10.26703/ JCT.v14i2-10.

Abstract

The present paper examines the trends of fiscal deficit and economic growth in India from 1980-81 to 2017-18 and also analyses the impact of fiscal deficit on Indian economic growth by using regression model. The impact of fiscal deficit has always been a subject of intense debate. Some academician emphasized that fiscal deficit as a growth promoting tool due to increase in government expenditure, while others emphasize that the fiscal disciple as the most important for strengthening macroeconomic fundamentals of the economy. The regression result of the paper indicates that there is negative and significant impact of fiscal deficit on the economic growth of India. The research paper suggested that fiscal deficit within limit is good for economic growth and the government fund should be spent on beneficial projects. It is also suggested that sustainable economic growth and steady reduction in fiscal deficit can be achieved through fiscal policy reforms in India.

Keywords: Fiscal deficit; Economic growth and India.
Classification-JEL : C58

1. INTRODUCTION

In the recent decades, India economy is the most emerging economy in the world and it has been one of the top performers in the globe over the past decade with more than 6.0 per cent of economic growth. Economic development has always been the most important goal of any economic policy all over the globe. Therefore, it becomes of particular interest to see in what way and how much an economic activity or a component of it is going to affect economic growth and development. The development goals are generally defined in terms of progressive reduction in unemployment, poverty and a rise in rate of economic growth and standard of living of the masses.

Economic Growth is the most sought out objective of economic planning and policy making in India and elsewhere. It is only higher economic growth that makes reduction in poverty possible. Redistribution of wealth is no answer when there is nothing to distribute (Mohan, 2000). The link between fiscal deficits and economic growth is one of the most widely debated relationships in the macroeconomics literature. One widely espoused theory arises from the neoclassical tradition which stresses that an increase in the deficit increases aggregate demand, raises real interest rates, and depresses investment and thus overall economic growth. If this were the case, one would expect to see a negative causal relationship between fiscal deficits and growth. The Keynesian approach emphasizes that, in conditions of less than full employment, fiscal expansion will increase aggregate demand, and thus increase output, implying a positive causal

relationship between fiscal deficits and growth. A third approach—the Ricardian approach—that argues that fiscal deficits do not change national savings because individuals increase private saving to exactly offset the rise in the budget deficit, has received very little empirical support in practice (Kochhar, 2004).

There has been a good deal of empirical research to find out the relation between fiscal deficit and various factors determining economic development and growth. Easterly (2004), feels that it is rather a two way relationship and the direction of causality is much more difficult to establish. On the one hand, the finding of a negative association will be in line with the neoclassical approach because fiscal deficits result in lower savings and investment and thus reduce growth. Alternatively, it could also be possible that a fall in growth rate leads to larger budget deficits either through the working of automatic stabilizers (i.e., revenue falls with the decline in GDP growth), or because of the discretionary implementation of counter-cyclical fiscal policies in the face of falling growth.

According to Lekha chakravorty (2002), the real crowding out occurs when the increase in public investment displaces private capital formation. The financial crowding out is the phenomenon of partial loss of private capital formation, due to the increase in the interest rates emanating from the pre-emption of real and financial resources by the government through bond-financing of fiscal deficit. In recent years, in the context of macroeconomic management in India, it has often been argued that high fiscal deficit is affecting capital formation in the economy both by reducing private investment through an increase in interest rate and also through reduction in public sector's own investment arising out of ever-increasing consumption expenditure.

Ramirez, (1994) and Krishnamurty (1985) conducted empirical tests and found a complimentary relation between public and private investment. Their common logic for this complimentary relation was that increase in public capital formation stimulates aggregate demand and in turn increases private investment. Another link for the existence of this complimentary relationship is that a higher stock of public capital, in particular infrastructure, may increase the return of private investment projects. Sunderrajan and Takur (1980) and Parker (1995) have found evidence for crowding out between public and private investment. Their studies argued that public investment might act as a substitute for private investment.

It is in this context the present research paper aims to examine the impact of fiscal deficit on economic growth in India also analysis the emerging trends of fiscal deficit and economic growth during 1980-81 to 2017-18. It needs to be seen whether constraining fiscal deficit would be good or harmful for economic growth in the country. This paper also suggested the fiscal policy measures for controlling the fiscal deficit and enhances economic growth. This analysis has been done in a greater relevance in the context of the debate going on regarding the role of FRBMA to check deficit levels. According to theory, if government spending and investment are efficient and beneficial for socio-economic development, then fiscal expansion will be good for the economy (Mehrotra and Peltonen, 2005).

2. DATABASE AND METHODOLOGY

a) Database: The secondary data sources have been used in the present study for analysis purpose and the data have been collected from Reserve Bank of India (RBI) Handbook of Statistics on Indian Economy, Ministry of Finance government of India; Reports on Currency and Finance, Reserve Bank of India and Central Statistics Office (CSO), ministry of Statistics and Programme Implementation, Government of India.

Estimation of Compound Annual Growth Rate (CAGR): A widely accepted exponential model, $Y = ABteu$ has been fitted for estimating the CAGR of fiscal deficit and growth domestic product (GDP) from 1980-81 to 2017-18 and its sub periods in India. The compound annual

growth rate is usually estimated by using the following functional relationship;

$\ln(Y) = \ln(A) + t \ln(B) + u$

Where, Y is the dependent variable (Fiscal Deficit and GDP); t is the independent variable (time period); u is the disturbance or error term and, 'A' and 'B' are the parameters to be estimated from sample observations. The compound annual growth rate (CAGR) in per cent term is estimated by the OLS method;

$CAGR = \{Antilog(B) - 1\} * 100$

b) Simple Regression Model: A simple regression model is developed to identify the impact of fiscal deficit on economic growth in India from 1980-81 to 2017-18. Annual growth rate of gross domestic product at constant price (GDPGR) is considered as a dependent variable whereas the fiscal deficit as per cent of GDP (GFDR) is considered as independent variables. The logarithmic form of the both variables has been taken for the analysis purpose. The empirical simple regression model is defined as:

Table 1: CAGR of Gross Domestic Product (GDP) and Gross Fiscal Deficit (GFD) in India

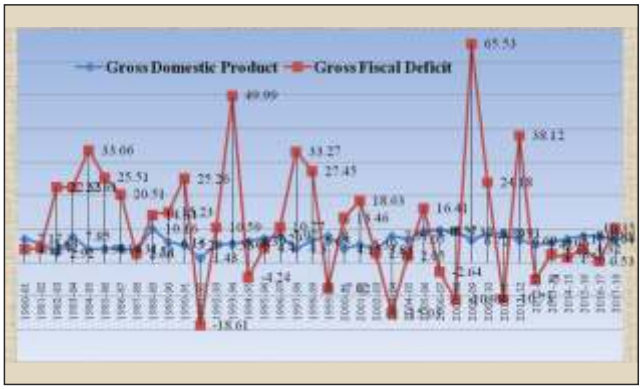
Time Period	Gross Domestic Product (GDP)	Gross Fiscal Deficit (GFD)
1980-81 to 1989-90	5.17	19.24
1990-91 to 1999-00	6.14	12.86
2000-01 to 2009-10	7.83	11.09
2010-11 to 2017-18	6.91	4.46
1980-81 to 2017-18	6.43	12.05

Source: Author's calculation based on RBI database.

Overall from the above analysis, it is observed that gross domestic product and gross fiscal deficit grew at positive rate but it showed wide variation throughout study period and its sub periods in the country with respect to gross fiscal deficit. It is witnessed that growth of gross fiscal deficit revealed highest during 1980-81 to 1989-90 because of increasing oil prices at global level, which is increased due to Golf country war.

The annual growth rate of gross domestic product (GDP) and gross fiscal deficit (GFD) are also shown in Figure 1. It is found that annual growth rate of GDP was highest 10.16 per cent in 1988-89 and lowest 1.43 per cent in 1991-92 whereas GFD grew at the rate of highest 65.53 per cent in 2008-09 and lowest -18.61per cent in 1991-92 at national level. On the other hand, the annual growth rate of GDP decreased from 7.17 per cent in 1980-81 to 6.94 per cent in 2017-18 whereas the growth rate of GFD showed 4.12 per cent in 1980-81 and increased to 10.35 per cent in 2017-18. Overall from the analysis, it is quite clear that during the period 1991-93, the annual growth rate of gross domestic product and gross fiscal deficit sharply decreased due to crisis of balance of payment and weak economic conditions at national level. Further, it is also fact that growth rate of fiscal deficit sharply increased in 2008-09 as a result of global financial crisis.

Chart 1 : Annual Growth Trends of GDP and GFP in India



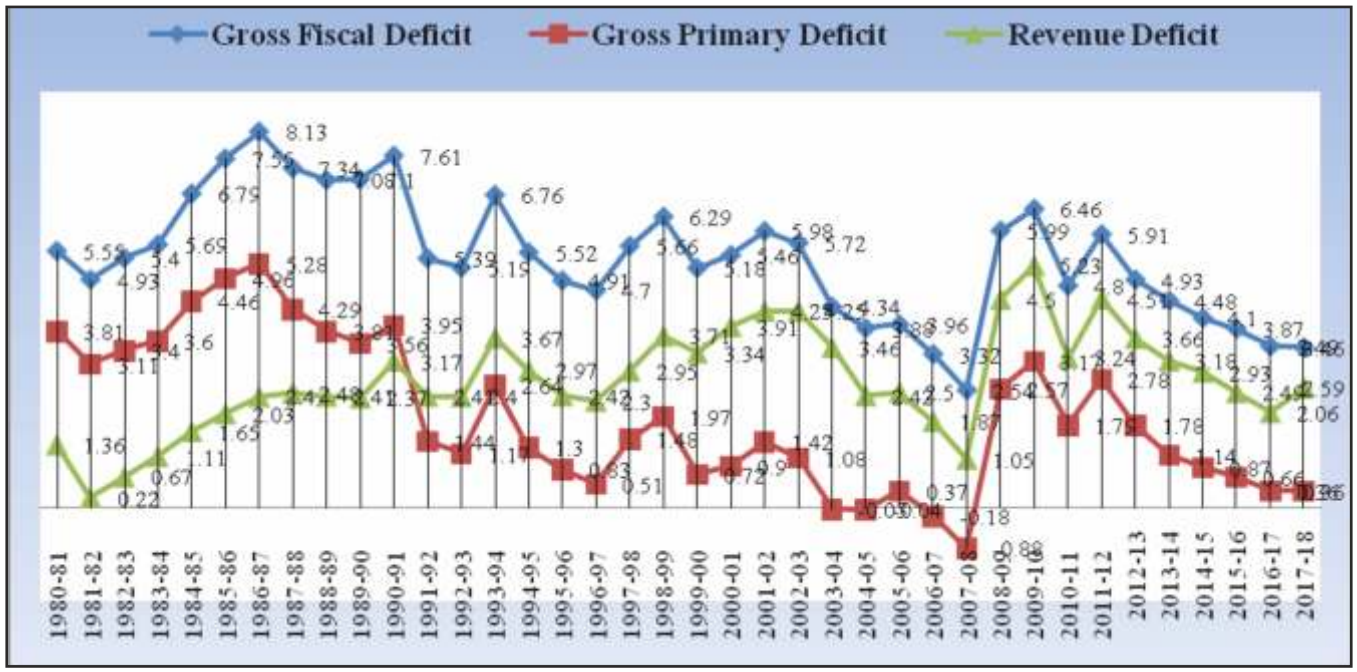
Source: Author's calculation based on RBI database.

Emerging Trends of Central Government Deficits in India: Figure 2 shows that the deficit of the central Government as percentage of GDP in India during 1980-81 to 2017-18. Gross fiscal deficit, revenuer deficit and primary deficit are three deficit of central government in India. It is found that gross fiscal deficit decreased from 5.55 per cent in 1980-81 to 3.46 per cent in 3.46 per cent at national level. With respect to the gross primary deficit, it sharply decreased from 3.81 per cent in 1980-81 to 0.36 per cent in 2017-18. In case of revenue deficit, it stood at 1.36 per cent of GDP in 1990-91 and increased to 2.59 per cent in 2017-18. It is also seen that gross fiscal deficit and gross primary deficit showed highest of 8.13 per cent and 5.28 per cent in 1986-87 but it revealed lowest of 2.54 per cent and -0.88 per cent in 2007-

08 respectively. Considering revenue deficit, it accounted maximum 5.23 per cent of GDP in 2009-10 and minimum 0.22 per cent in 1981-82 in the country. Oversell from the analysis, it is witnessed that deficit of the government such as gross fiscal deficit, gross primary deficit and revenue deficit as percentage of gross domestic product showed wide fluctuation overall the entire study period at national level in India.

R-square are 0.3786 and 0.3558 respectively. It means that the model explained least around 38 per cent variation. The economic growth has been explained by fiscal deficit at the significant rate during the entire period of study. The regression result also indicates that that gross fiscal deficit (GFDR) has negative and significant impact on growth rate of gross domestic product (GDPGR) during the period 1980-81 to 2017-18 in India.

Chart 2 : Emerging Trends of Central Government Deficits in India



Source: Author's calculation based on RBI database.

c) Regression Result: The regression result of the impact of fiscal deficit on economic growth in India has been shown in the Table 2. The regression result shows that the model is fit for explanation. The value of R-square and Adjusted

Table 2: Simple Regression Results of Economic Growth and Fiscal deficit in India

Independent Variable	Dependent Variable: GDPGR		
	Coefficient	t- value	P-value
GFDR	-0.6287	2.800	0.008
Constant	2.836	7.530	0.000
Probability > F-value		0.0082	
R – squared		0.3786	
Adjusted R-squared		0.3558	
Root MSE		0.3978	
Number of Observations		38	

Source: Author's calculation based on RBI database.

Furthermore, the magnitude of F-value highlights that the given model is a good fit between the gross domestic product and gross fiscal deficit at national level. The elasticity coefficient of gross fiscal deficit with respect to economic growth in India has been found -0.6287. It indicates that there are significant relationship between gross fiscal deficit and economic growth in India.

3. CONCLUSION AND POLICY SUGGESTIONS

The present research paprer has been analysed that the emerging trends of fiscal deficit and economic growth in India and also identify the impact of fiscal deficit on economic growth. This is obvious from the analysis that economic

growth rate as well as other macro economic parameters are affected by fiscal deficit in India. The fiscal deficit within limit is the better for the economy growth. However, it is to be admitted that if this deficit is because of increase in capital expenditure, the results could have been otherwise. But whenever it comes to cutting expenditure, capital expenditure becomes the softest target as it is politically easiest. In the same way, on the revenue expendiyure front, increasing coverage of revenue collection is extremely important, but the tax base is as narrow as ever. The present paper suggested that there is a need to be correct fiscal deficit to achive the sustainable economic growth. The government should focus on raising revenue resources in the least distortionary way possible and to reorient spending from wasteful areas to ones where India has dire needs.

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