Macroeconomic Effects of Fiscal Deficit on Indian Economy: An Empirical Analysis

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Abstract:-The fiscal deficit sphere of Indian economy presents a weak state of affairs, characterized by imbalanced macroeconomic scenario. Policy makers have undertaken measures for restructuring and adjustment of fiscal programs to implement counteractive measures. Thence, this study attempted to estimate the effect of Fiscal Deficit (FD)on economic growth (GDP) in India for a period of 1985 to 2015, considering other macroeconomic variables such as current account deficit (CAD), inflation rate, interest rate, exchange rate, and total public expenditure. Employing ARDL model, fiscal deficit has a negative long-run as well as short-run effect on economic growth in India. Further, the results show that CAD is also observed to have a negative relationship with GDP in the both long and short run. Furthermore, the Granger Causality test has been applied to check the direction of causality among the variables. The results show that FD effects the GDP through a transmission channel, i.e., change in the value of fiscal deficit causes inflation rate which leads to change in exchange rate as well as interest rate simultaneously and, later on, both of them influence the GDP. The findings of the present study support the Neo-classical view in the context of effect of budget deficit on Indian economy. Therefore, Indian government should not always adopt the method of acquiring loan as an option to overcome the issues of fiscal deficit as it may bring the economy downward. Instead of it the government is suggested to focus on the underutilized resources to avoid problems caused by fiscal deficit.
Keywords: Fiscal Deficit, Economic Growth, ARDL model

I. INTRODUCTION

        Fiscal policy is considered as an essential determinant to explain growth performance of any particular country (Easterly & Rebelo, 1993). Fiscal deficit serves as an indicator of fiscal policy where deficit implies that total expenditure incurred by the Government of the country surpasses the total receipts it generates except borrowings. The fiscal deficit sphere of Indian economy presents a weak state of affairs, characterized by imbalanced macroeconomic scenario. Policy makers have undertaken measures for restructuring and adjustment of fiscal programs to implement counteractive measures. An exploration of the fiscal issues with respect to the theoretical perspectives defined by Neoclassical, Keynesian and Ricardian schools of thought concerned with economic effects of budget deficits (Bernheim, 1989), draw the attention of researchers to the Neoclassical paradigm. Bernheim (1989) states that the basic structures and implications of these three schools are different. He explained that neoclassical paradigm assumes individuals to be far-sighted and they plan consumption over their own life cycles, Keynesian paradigm assumes majority of the population to be short-sighted or constrained by liquidity and Ricardian view assumes successive generations to be linked through voluntary transfer of resources. He added that the neoclassical framework offers the most practical and realistic insights of the economic effects of deficits because it focuses on the impact of permanent deficits as opposed to temporary deficits that Keynesians school focuses on. In India, the persistent fiscal deficits have primarily been financed by borrowings from reserve bank and public borrowings, with consequential increase in public debts. Thus, national debt proves to be a burden for future generations and reduces the capital reserves and flows.
        Therefore, the present study made an attempt to estimate the impact of fiscal deficit on economic growth in India during 1985-86 to 2015-16 using Auto-Regressive Distributed Lag (ARDL) Bounds Testing of Cointegration (Pesaran& Shin, 1999). This paper is structured as follows. The following subsection 1.1 highlights the state of fiscal deficit in India from 1985-86 to 2015-16. Section 2 is further divided into two subsections. Former provides the theoretical background regarding the economic effects of fiscal deficit, whereas, latter provides brief review of the relevant empirical studies. The empirical model employed in this study is presented in section 3. Section 4 discusses the results obtained through the application of various estimating techniques and section 5 concludes the study with few suggestions.

1.1. Fiscal Deficit in India

The fiscal deficit is defined as the difference between the Government's total expenditure and total receipts net of borrowings (Yap, Reyes, & Cuenca, 2009). It is one of the four major types of deficits run in an economy, the others being budget deficit, revenue deficit and primary deficit. The issue of fiscal deficit in India became important in the late 1980s when fiscal deficit as a percentage of gross domestic product (GDP) reached a level of more than 7percent(Rangarajan & Srivastava, 2005). It was further observed that fiscal deficit was above 9percent in the early nineties and crossed the threshold of 10percent of GDP in 2001-02.

The rise in fiscal deficit has typically been financed by borrowings. Public borrowings are the expeditious source of funds, which is also regarded to promote saving and investment. However, increased public borrowings lead to debt burden on future generations, annual payment of interests on the borrowed funds resulting in accumulation of deficits, and consequential increase in demand of loanable funds resulting in rise of interest rate. The Indian government has faced the issues of large fiscal and monetized deficits, and increased debt-GDP ratio (Rakshit, 2000).

It is apparent from figure 1 that fiscal deficit from period 1985 to 2005 remained at an average of 5.6 percent of the GDP. Nonetheless, there was considerable rise and fall in its overall structure– from 6.04 percent in 1992-97 and 6.25 percent in 1997-2002 to 2.5 percent in 2007-08. Later, it increased magnanimously in 2008-09, during the global financial crisis andstarted declining steadily since 2011.

Figure 1: Fiscal Deficit as percentage of GDP (1985– 2015)

FD as a percentage GDP
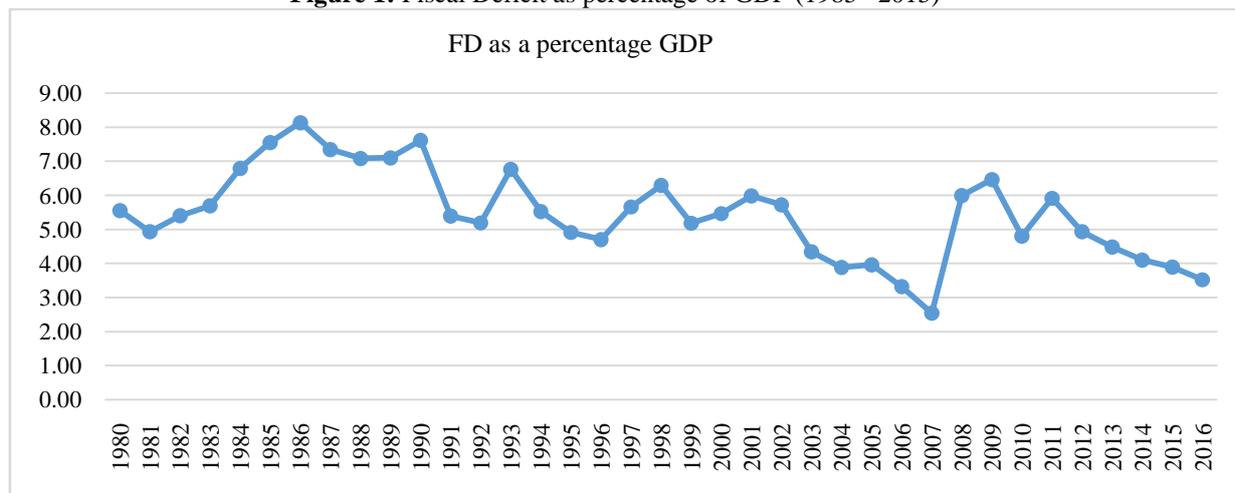
Source: RBI, 2017

To counter the eventual rise in the fiscal deficit, the Indian Government incorporated various institutional arrangements to drive the agenda of economic development. The evidence of unsustainable economic performance indicated by the levels of GDP, inflation rate, deficits and currency exchange rates in the post-liberalization period compelled the Government to introduce the Fiscal Responsibility and Budget Management (FRBM)Act, 2003.

The Act defines the term targets for the balancing of current revenues and expenditures, besides setting of overall fiscal deficit limits at 3 percent of GDP. These objectives are to be achieved as per the phased deficit reduction roadmap. This Act has also enhanced the budgetary transparency by including provisions for mandatory reporting of Government's economic assessments, expenditure strategies, rolling targets, taxation strategies, and fiscal balance before Parliament annually. Besides a centralized fiscal framework, a large number of states have also developed indigenous fiscal discipline legislations (Herd & Leibfritz, 2008).

The effective fiscal policies coupled with a regulated financial sector, appropriate capital account policies, large reserves of foreign exchange and strong domestic consumption allowed the Indian economy to stride through the economic crisis of 2008 (De, 2012). After the crisis of 2008, the process of fiscal consolidation was reinstated by 13th Finance Commission (FC) as it outlined a map of desirable fiscal deficit target. In 2009-10 the budget aimed to achieve fiscal deficit of 6.5 percent of GDP while in the consecutive year the target was set at a level of 5.5 percent of GDP. But the level achieved of fiscal deficit was 5.1 percent, which wasmuch better than that set target (RBI, 2016). Themedium-term fiscal policies also continued on the path of gradual adjustment at a pace faster than prescribed by the 13th Finance Commission. However, in 2013-14 and 2014-15, fiscal deficit to GDP percentages fell to 4.9percent and 5percent respectively. These figures suggest a comparatively better scenario as far as deficit financing by the Government is concerned.

II. REVIEW OF LITERATURE

2.1. Theoretical Perspective

The purpose of this section is to review some of the major theoretical arguments regarding the linkage between fiscal deficit and economic growth. There are three paradigms i.e., The Neo-Classical View, The Keynesian View and The Ricardian Equivalence, which have different views regarding the impact of fiscal deficit on economy.

2.1.1. The Neo-Classical View

The Neo-classical paradigm focused on showing a contrary relation between budget deficits and macroeconomic variables (Bernheim, 1989). In their perspective, if the diminution of savings of government is not offset by increasing private saving then budget deficits have a prejudicial effect on the development or growth. Also, they argue that budget deficit leads to an increment of interest rate, decrement of issuance of private bonds, private investments, spending, and thereby rise of inflation. All these consequences put the adverse effect on economic growth. This paradigm says that through shifting the taxes to the descendant fiscal deficits invoke lifetime consumption. Furthermore, if all the resources are employed their tendency of expending more implies to the reduction of saving. This paradigm based on three features. First, the intake of an individual is ascertained as an elucidation to an inter-temporal optimization problem, where borrowing and lending both are permitted as market rate of interest. Secondly, it considers that every person has a terminable lifespan where each consumer relates to a cohort and the lifespan of that future generation overlaps. Third and last is market clearing.

2.1.2. The Keynesian View

The Keynesian economists argue that there is a positive relationship between budget shortage and macroeconomic variables (Bernheim, 1989). Also, the traditional view of Keynesian is different from Neo-classical as this view do not focus on full employment and accept that some economic resources may be unemployed. It beholds that increasing the expenditures of government, whether an investment or consumption, financed through borrowing causes an output to be extendable in a multiplier process. Also, the Keynesians argue budget deficit leads to the rising of domestic production, demands, savings, and private investment. Additionally, the Keynesian absorption theory says that increasing budget deficits would stimulate domestic absorption and thus, expansion of import, resulting in current account deficit. It has been observed that the Keynesian analysis shows that a budget deficit makes the people wealthier by raising the employment.

2.1.3. Ricardian Equivalence

According to Ricardian, observation deficits merely tends to postpone the taxes. Ricardian suggested that government budget shortages do not influence the overall demand in an economy. Also, it has been suggested that government can finance the expenditures by putting tax on current taxpayers, or borrowing money. However, the government pays the borrowing by imposing more taxes on the individuals. Therefore, the choice of imposing tax is "tax now" or "tax later". In case of "tax later" the consumer save the extra money to pay for future tax; and this saving of the consumer completely setoffs the surpass expenses by government, and thus the overall demand keep unchanged (Bernheim, 1989). The economist further argues that a cut in present taxes is to be matched by an increase in future taxes , leaving real interest rates and thereby the private investment, current account balance , exchange rates , and domestic production remain unchanged . Therefore, according to this paradigm, the budget deficits neither crowd-in nor crowd-out the macroeconomic variables or it can be said that there does not exist any positive or negative relationship. Furthermore, it has to be considered that the relevance of the Ricardian observation only pivots upon the length of consumers' planning horizons. If fiscal policy postpones tax collections until after current taxpayers have died, then it may well recast real economic decisions.

2.2. Review of Empirical Studies

While the selection of an appropriate paradigm provides us with some clue as to the likely effects of fiscal deficits, the issue is ultimately an empirical one. Today, there is a vast body of research that examines the relationship between budget deficits and economic growth. Here, few selected studies are mentioned. Lwanga and Mawejje (2014) investigated the same using the vector error correction model, exploring the economy of Uganda, from 1999 to 2011. The findings showed no causal relationship existed between GDP and budget deficits in Uganda. However, the budget deficits were found to be responsible for widening current account deficits and increase in interest rates. Chakraborty (2006)analyzed the real and financial crowding out in India using asymmetric vector autoregressive model focusing on financial crowding between the public and private investments. The findings showed complementarities between the two, besides rate sensitivity of private capital formation. However, it was not accompanied with fiscal deficit induced increase in rate of interest.Korsu

(2006)evaluated the relationship between budget deficit and macroeconomic variables in Sierra Leone. The results for long run derivations showed that budget deficits shared a negative and significant relationship with GDP, money supply, and exchange rate, whereas a positive but insignificant relationship was demonstrated with interest and inflation rate. The short run derivations showed the similar relationships for all the variables except for the exchange rate. The study results also indicated the existence of strong causal relationships between the different variables and budget deficit. Saleh (2003)in his study, concluded upon the widespread evidence of Keynesian proposition in both developing and developed nations. The study reports a strong and positive relationship between budget deficits and interest rates. Also, the belief that monetization of budget deficits results in inflation was supported.Oblath (1995)explored the macroeconomic effects of budget deficit under the conditions of high inflation, large public debt, and high government expenditures under foreign debt. The researcher took Hungary as the case nation, and utilized corrected measures to explore inflation using adjusted deficit. The study rejected the assumption that overheating of economy is caused due to overspending by government. However, it was highlighted that huge budgets need to be financed by governments via bonds having high nominal and real interest rates.

III.   METHODOLOGY

In order to examine the impact of fiscal deficit on economic growth for the period 1985-2015in India, the study has employed Auto-Regressive Distributed Lag (ARDL) model (Pesaran& Shin, 1999). The other macroeconomic variables namely current account deficit, inflation, interest rate, exchange rate, and total expenditure are also considered for the analysis. The following mathematical form of the model has been taken.
GDP= f (FD, CAD, Inflation rate, Interest Rate, NEER,Totalexp)
where,

> *GDP= GDP growth rate*
> *GFD= Gross fiscal deficit as a percent of GDP*
> *CAD= Current account deficit as a percent of GDP*
> *Inflation rate= WPI as a percent*
> *Interest Rate= Interest rate on dated government securities*
> *NEER= Nominal effective exchange rate (year on year growth)*
> *Totalexp = Government total expenditure as a percent of GDP*

The ARDL equation in the model is as follows:

$$\Delta GDP_t = \alpha_0 + \sum \beta_1 \Delta FD_{t-i} + \sum \beta_2 \Delta CAD_{t-i} + \sum \beta_3 \Delta Inflationrate_{t-i} + \sum \beta_4 \Delta Interestrate_{t-i} + \sum \beta_5 \Delta NEER_{t-i} + \sum \beta_6 \Delta totalexp_{t-i} + \sum \delta_1 FD_{t-i} + \sum \delta_2 CAD_{t-I} + \sum \delta_3 Inflationrate_{t-i} + \sum \delta_4 Interestrate_{t-i} + \sum \delta_5 NEER_{ti} + \sum \delta_6 Totalexp_{t-i} + \sum \Omega_l GDP_{t-i} + \mu_t \ldots \ldots (1)$$

Where, i is the number of lags, Δ represents the first difference operator, α_0 is the drift component, and μ_t represents the residuals. Furthermore, GDP is the dependent variable, while the independent variables are fiscal deficit, current account deficit, inflation rate, interest rate, total expenditure, and exchange rate. Moreover, the coefficients from β_1 to β_6 are used to depict the short-run relationship and coefficients δ_1 to δ_6 represent the long-run relationship among the variables. In order to examine the long-run relationship among the variables, bound testing procedure has to be used using F-test (Pesaran, Shin, & Smith, 2001). Where, F-test will test the null hypothesis stating that there is no co-integration among the variables. Here, the null hypothesis and alternate hypothesis can be represented as follows:

H_0: $\delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0$ (There is no co-integration among the variables)
H_1: $\delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq \delta_6 \neq 0$ (There is co-integration among the variables)

After performing the bound test in ARDL model, Error correction mechanism is employed using the equation as mentioned below:

$$\Delta GDP_t = \alpha_0 + \sum \beta_1 \Delta FD_{t-i} + \sum \beta_2 \Delta CAD_{t-I} + \sum \beta_3 \Delta Inflationrate_{t-i} + \sum \beta_4 \Delta Interestrate_{t-i} + \sum \beta_5 \Delta NEER_{t-i} + \sum \beta_6 \Delta totalexp_{t-i} + \lambda EC_{t-1} + \mu_t \ldots \ldots (2)$$

IV.   EMPIRICAL ANALYSIS

4.1. Unit Root Test and AssumptionsCheck:

To measure the relationship of fiscal deficit and economic growth of Indian economy using ARDL approach, initially the unit root testing and necessary assumptions have to be check before moving towards analysis. Using ADF (Augmented Dickey-Fuller) test, stationarity of all the variables has been examined at level and first difference in order to avoid spurious regression analysis.

Table 1: Unit Root Test

Variables	Level	At First Difference	Stationary level
	t-stat	t-stat	
GDP	-4.43[**]	-	I(0)
FD	-2.46	-6.28[**]	I(1)
CAD	-2.23	-5.85[**]	I(1)
Inflationrate	-2.09	-6.68[**]	I(1)
Interest rate	-0.92	-3.70[**]	I(1)
NEER	-4.37[**]	_	I(0)
Totalexp.	-1.26	-4.21[**]	I(1)

Source: Author's Compilation

Variables GDP and NEER are found to be stationary at level, i.e. integrated of order zero. All other variables namely fiscal deficit, current account deficit, inflation, interest rate, and total expenditures are found to be stationary at first difference. None of the variables in the study are integrated at second order, therefore, all the variables are integrated either at level or at their first difference.

The ARDL model can only be considered valid if the model follows the normality assumption along with no presence of heteroskedasticity and autocorrelation.

Normal Distribution Test
The probability value ofJarque-Berais 0.57, which is more than 0.05shows that the error term in the model is normally distributed (see fig. 2 in appendix).

Auto-correlation test
The probability value of Chi-square is 0.88, which is more than 0.05 shows that there is no presence of auto correlation. Hence the model is free from auto-correlation.

Table 2: Serial Correlation LM Test: Breusch – Godfrey

F-stats	0.014280	Prob. F(1,21)	0.90
Obs*R-squared	0.020386	Prob. Chi-square(1)	0.88

Source: Author's Compilation

Heteroskedasticity test
The probability value of Chi-square is 0.81, which is more than 0.05 shows that the model is free from heteroskedasticity which mean the size of the error term does not vary across the values of independent variables.

Table 3: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.444265	Prob. F(7,22)	0.8634
Obs*R-squared	3.715501	Prob. Chi-Square(7)	0.8119
Scaled explained SS	1.068041	Chi-Square(7)	0.9937

Source: Author's Compilation

All the assumptions have met. Therefore, ARDL model is the most optimal approach for estimating long run and short-run dynamics among the variables.

4.2. Lag selection
The order of lag length has been identified using unrestricted vector through Akaike Information Criteria (AIC). ARDL (1,0,0,0,0,0,0) emerged the most appropriate model based on AIC criteria as shown in figure 3 (see appendix). Hence, the analysis has been carried out keeping this model into consideration.

4.3. Co-integration test
In order to check co-integration among the variable, Bounds Co-integration test has been applied. F-test has been used to test the significance of long-run co-integration between the variables.

Table 4: Bounds Co-integration test

F-statistics	4.66	
Significance bound	**I (0) Bound**	**I (1) Bound**
10Percent	2.12	3.23
5Percent	2.45	3.61

Source: Author's Compilation

Here, F-test statistics is 4.66, which exceeds all the upper critical values at 5 and 10 percent level of significance. This gives evidence on the existence of long-run relationship among the variables as the null hypothesis stating that there is no long-run relationship/co-integration among the variables is rejected. This signifies that a long run relationship exists among Indian economic growth and other macroeconomic variables.

4.4. Short and long-run analysis

After establishing the co-integration among economic growth and macro-economic variables, long-run relationship and short-run association via ECM (Error correction mechanism) model have been applied to examine the impact of individual explanatory variable on Indian economic growth. While moving towards the findings obtained from the table5, it has been depicted that for the period 1985-2015 fiscal deficit has a negative impact on economic growth in the presence of all other variables. It can further be interpreted as 1 percent increment in the fiscal deficit in long run results into 0.63 percent reduction in GDP, while keeping all other variables constant for that period. This implies that fiscal deficit of Indian government has been a constraint to the growth of Indian economy in the long run. Hence the investment policy requires changes so that the significant growth may be achieved.

Table 5: Long Run Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FD	**-0.630710****	0.287204	-2.196039	0.0389
CAD	**-0.407244****	0.138104	-2.948832	0.0074
Inflation Rate	-0.124622	0.154363	-0.807332	0.4281
Interest Rate	-0.071376	0.157123	-0.454270	0.6541
NEER	**0.289523***	0.147624	1.961216	0.0626
TotalExp	0.337121	0.256585	1.313878	0.2024
C	0.098287	0.122970	0.799278	0.4327

Source: Author's Compilation

CAD is also observed to have a negative long-run relationship with GDP at 5 percent significance level. It also shows that 1 percent increase in current account deficit may bring 0.40 percent negative change in GDP. Furthermore, NEER has positive long-run relationship with GDPat10 percent significance level. It also shows that 1 percent increase in NEERleads to bring 0.29 percent positive change in GDP.Rest of the variables are observed to have no significant long-run impact on GDP.

The results of short-run dynamics are shown in table 6. The signs of short-run relationship are consistent with the long run relationship. In short-run, the negative impact of fiscal deficit on Indian economy has increased drastically. For instance- in short-run, 1 percent positive change in the current value of fiscal deficit brings 0.78 percent negative change in the Indian economy controlling the effects of other variables. Such a high negative impact of fiscal deficit in India is extremely undesirable as it shows the ineffectiveness of government policies and investments. CAD has been observed to follow the similar trend where the impact is highly negative but less than the effect of fiscal deficit. However, NEER has positive and significant impact on GDP at 10 percent level of significance in the short run. Following the trend, all other variables have not shown any short-run association with economic growth.

Table 6: Short-Run Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FD)	**-0.778974****	0.353124	-2.205948	0.0381
D(CAD)	**-0.502977****	0.184739	-2.722633	0.0124
D(InflationRate)	-0.153917	0.187634	-0.820307	0.4208
D(InterestRate)	-0.088155	0.194685	-0.452809	0.6551
D(NEER)	**0.357582***	0.187366	1.908467	0.0695
D(TotalExp)	0.416369	0.310564	1.340689	0.1937
CointEq(-1)	**-1.235074**	0.177349	-6.964101	0.0000
Cointeq = GDP - (-0.6307*FD -0.4072*CAD -0.1246*Inflation Rate -0.0714*Interest Rate + 0.2895*NEER + 0.3371*Total Exp+ 0.0983)				

Source: Author's Compilation

Also, the coefficient of the error correction term (ECT) has negative sign and shows significant at 5 percent significance level. The negative sign and statistically significance value signifies that there exists co-integration relation among the macroeconomic variables and GDP. The coefficient of ECT is -1.23, which depicts that the speed of adjustment towards long-run equilibrium is 123 percent annually. Finally, it may be said that changes in fiscal deficit have negative and significant effect on Indian economy in the long run as well as in the short run.

4.5. Stability test
At last, the stability of the model has been measured using CUSUM test. The plot of CUSUM test lies between the two straight lines (see fig. 4 in appendix). This shows that the estimated coefficients are stable with 5 percent significance level.

4.6. Granger Causality test
Furthermore, Granger Causality test has been applied to check the unidirectional and bidirectional causality among the variables. Based on the granger causality test (table 7), it can be seen that fiscal deficit is not directly causal to GDP or do not directly affect GDP. Only total expenditure and inflation rate have been observed to have bidirectional causality.

Table 7: Pairwise Granger Causality test

Null Hypothesis	Obs.	F-Statistic	Prob.
Interest Rate does not Granger Cause GDP	30	6.57513	**0.0162**
GDP does not Granger Cause InterestRate		2.64491	0.1155
InflationRatedoes not Granger Cause FD	30	0.00191	0.9655
FD does not Granger Cause Inflation Rate		4.75099	**0.0382**
InterestRatedoes not Granger Cause CAD	30	2.39378	0.1335
CAD does not Granger Cause Interest Rate		7.79823	**0.0095**
NEER does not Granger Cause Interest Rate	30	4.89284	**0.0356**
InterestRatedoes not Granger Cause NEER		0.65656	0.4249
NEER does not Granger Cause InflationRate	30	0.09913	0.7553
Inflation Rate does not Granger Cause NEER		10.3171	**0.0034**
Total Expdoes not Granger Cause Inflation Rate	30	7.96955	**0.0088**
Inflation Rate does not Granger Cause Total Exp		5.06216	**0.0328**
Total Expdoes not Granger Cause NEER	30	5.68279	**0.0244**
NEER does not Granger Cause TotalExp		2.76094	0.1082

Source: Author's Compilation

From the above causality relationship, it may be inferred that FD effects the GDP through a transmission channel, i.e., change in the value of fiscal deficit causes inflation which will lead to change in exchange rate as well as interest rate simultaneously and, later on, both of them influencing the value of GDP in successive years. This can be shown in the following flowcharts.
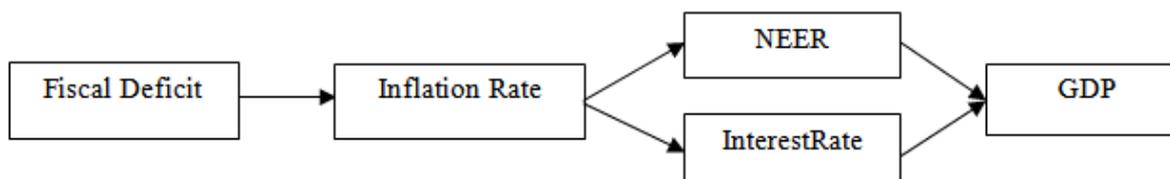
V. CONCLUSION
This study made an attempt to estimate the effect of fiscal deficit on economic growth for a period of 1985 to 2015, in the presence of other macroeconomic variables such as current account deficit, inflation rate, interest rate, nominal effective exchange rate, and total expenditure. After employing ARDL model, fiscal deficit showed negative long-run as well as short-run effect on economic growth. This shows that the fiscal deficit policy of Indian government has weakened the Indian economy for the period 1985-2015. The negative effect may occur due to the ineffective investment decisions of Indian government. The other reason may be due to high private borrowings, decrease in the net exports, and thereby increase in inflation and interest rate, and decrease in the purchasing power of people which brings the economy downward. The study has shown consistency with the study conducted by (Kochhar, 2004; Ramu & Gayithri, 2016) who also showed the adverse effect of fiscal deficit on Indian economy. Furthermore, Granger Causality test has been applied to check the

direction of causality among the variables. The results showed that FD effects the GDP through a transmission channel, i.e., change in the magnitude of fiscal deficit causes change in inflation rate which will lead to change in exchange rate as well as interest rate simultaneously and, later on, both of them influence the value of GDP.

The results of the present study support the validity of Neo-classical view in the context of effect of budget deficit on Indian economy. Studies for other developing countries like Pakistan (Fatima, Ahmed, & Ur Rehman, 2012), Ghana (Nkrumah, Orkoh, & Owusu, 2016), and Vietnam(Dao, 2013) have also shown evidence of negative effect of fiscal deficit on their respective economies.

Indian government is suggested to be cautious and conduct detailed research about the sectors and their future growth. The government should also not always look for acquiring loan as an option to finance the fiscal deficit as it may bring the economy downward. Instead of it, the government is advised to focus on the underutilized resources to avoid problems caused by fiscal deficit.

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APPENDIX
Figure 2: Histogram of Normal Distribution

Series: Residuals	
Sample 1986 2015	
Observations 30	
Mean	-8.70e-17
Median	0.029265
Maximum	1.237066
Minimum	-1.218503
Std. Dev.	0.704983
Skewness	-0.083809
Kurtosis	2.069050
Jarque-Bera	1.118456
Probability	0.571650
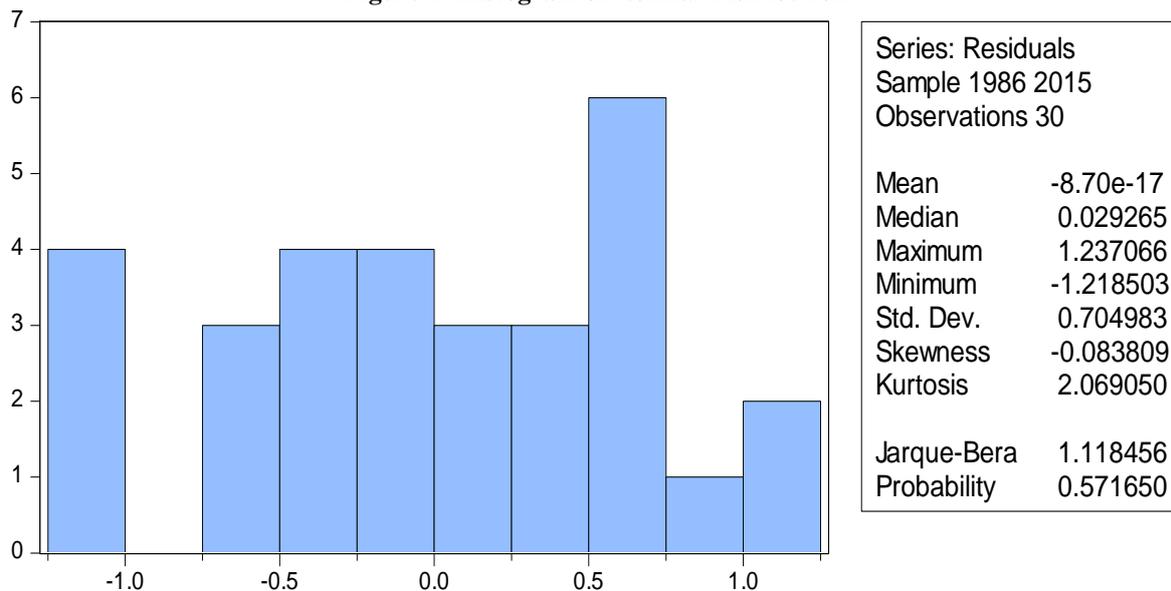
Figure 3: Lag Selection Criteria
Akaike Information Criteria (top 20 models)

Figure 4: CUSUM Test