Chapter 1

Fiscal Imbalance Position of the Central Government and Economic Growth in India: An Introduction

1.1 Introduction

In the post independence years India followed the policy of planned growth and for this it pursued conservative policies. The public sector was given a predominant role and was made the main instrument of growth. The private sector with limited capital flow was required to contribute to the country’s economic development in ways envisaged by the Indian planners. With the commencement of the First Five Year Plan it was felt that if planning has to be successful in India, huge financial resources would have to be mobilized through public borrowing to cover plan outlays. Fiscal policy therefore, was assigned an important role in the process of economic development in India. Thus, in a nascent Indian economy where the income and financial saving were low, the fiscal operation assumed the responsibility of creating the capital base in the form of infrastructure to stimulate growth.

Theses conservative polices continued for decades, but it was noticed as early as in the 1980s that there was excess of consumption and expenditure over revenue resulting in heavy government borrowing. During 1980s Indian public finance was in a state of disarray with the fiscal pattern destabilizing the relationship between the economy and budget. This resulted in persistently large deficits which seemingly intractable. The decade of 1980s could be called the decade of fiscal deterioration which in turn raised the question of sustainability of fiscal stance of the government. Thus, unsustainable level of government expenditure, insufficient revenues combined with poor returns on government investments led to fiscal excess in 1980s. Later this resulted in fiscal crisis at the beginning of 1991-92. Since 1991, central government carried out number of fiscal
sector reform as part of the ongoing economic reform. The overall impact of these reforms on fiscal imbalance has been quite encouraging for the few years of first half of the 1990s. However, the rising share of expenditure in GDP through the late 1990 and early 2000s, without a commensurate increase in revenue share of GDP increased the problem of fiscal imbalance in Indian economy.

Given the serious concern expressed on the fiscal position in the country, the government passed the Fiscal Responsibility and Budget Management Act (FRBMA) in 2003\(^1\). The bill was introduced with certain macro fiscal objectives of the country such as to maintain transparency in fiscal management system in the country, to bring inter generational equity in debt management and to bring long-term term fiscal stability in the economy. In addition to many other measures for fiscal correction, the bill stipulated a set of fiscal targets. Some of the major targets of the FRBM Act set in its original form are as follows:

(a) Elimination of revenue deficit by March 2009; (b) reduction of fiscal deficit to an amount equivalent to 3% of GDP by March 2008; (c) reduction of revenue deficit by an amount equivalent of 0.5 per cent or more of the GDP at the end of each financial year, beginning with 2004-05; (d) reduction of fiscal by an amount equivalent of 0.3 per cent or more of the GDP at the end of each financial year, beginning with 2004-05.

However, the government has continuously failed to achieve the targets set in the proposed fiscal norms. This led the policy makers to revise the bill in 2004 by extending the time frame to March 2008 to meet the goals as set out earlier. However, for the years 2008-09 and 2009-10, the government planned to monetize the deficit to some extent; to overcome recessionary conditions in the Indian economy created by the global financial crisis of 2007-09. Therefore, fiscal imbalance position of the central government greatly went up due to fiscal stimulus packages adopted for the years 2008-10.

\(^1\) The FRBM Act was enacted by Parliament in 2003; later FRBM Act (2003) came into force from July 5, 2004.
This gives an indication that despite several policy measures undertaken in the past, the government has not been able to curb the rising level of deficit. The rapid increase in fiscal imbalance of the central government has given rise to emergence of several critical issues. Many economists opine that such a rise in fiscal imbalance is a threat to the macro stability of the economy. In this context, the emerging issues can broadly be outlined as follows, to bring out a consensus regarding the possible consequences of the rising level of fiscal imbalance.

1.2 Fiscal Imbalance of the Central Government of India: Problem Identification

Fiscal imbalance continues to be the most frequently debated problem among academicians and policymakers in India. In presence of sharp fiscal deterioration both at central and state governments, large fiscal imbalance assumes a critical importance in the overall macro economic framework. Persistence large fiscal imbalance raises a number of issues on government budgetary and overall macroeconomic policies in the country. One of the channels through which the fiscal imbalance impacts the growth performance of the economy is through deterioration in the quality of public expenditure. Prudent management of public finance requires that receipts on revenue account should not exceed expenditure on revenue account. However, since last decade along with the rising level of fiscal deficit, the revenue deficit which determines the quality of fiscal adjustment is also deteriorating. This mean that government revenue sources through taxation and non-taxation failed to meet the size of government expenditure. IMF India sustainability report (2011)\(^2\) noted that the rising share of expenditure in GDP through late 1990 and early 2000s, then again in the years before the global financial crisis, without a commensurate increase in revenue share of GDP reflects the failure of the government to take advantage of a sustained boom to built fiscal space.

The major factors included in the rising expenditure of the central government are large outlays on subsidies, including because of a high incidence of poverty, a succession of coalition government and federal state fiscal agreements. This indicates a diversion of capital receipts to meet the revenue expenditure. The government borrowings, which form a major source of capital receipts, get absorbed in incurring revenue expenditure. While, the first principle of public finance, written in every economics textbook, that money should be borrowed only for productive investment so that it can generate a future stream of income to pay back the borrowed fund. According to Siddiqui and Ilyas (2011)\(^3\) the underlying rational is that when government achieves targeted revenue and does not rely on internal and external sources to meet the revenue deficit the average economic growth increases. This deterioration in the quality of the public expenditure the later, in some years, has led to rise in the cost of fiscal adjustment.

Thus, in order to ensure economic growth of more than 8 percent per annum on a sustain basis, focus should be on reducing revenue deficit to increase the quality of the public finance. Such perceptions necessitate a critical examination of the trend, composition of central government finances and assessment of fiscal imbalance position of the central government in India. Hence, two major objectives of the study are: (I) to make an extensive review of the existing scenario of central government finances and (II) an assessment of fiscal imbalance position of central government in India.

In India during 1990s, discussion of fiscal policy focused mainly on fiscal deficit and government debt as a source of inflation, balance of payments problem and on the contribution of fiscal adjustment to stabilization programme designed to address such problem. However, with prolonged slump in Japan, Korea and Thailand during Asia crisis and more recently in the US and Europe emphasis once again has shifted to the role of fiscal policy in stimulating economic activity/ growth. The case of India is no

different. Hence, many developing countries including India, recognized from the outset that, given the mix character of the economy, fiscal policy would have to play a key role in ensuring macroeconomic stability and in turn act as a catalyst for sustained economic growth (Sinha and Pant, 2010). One issue in this context is the impact of fiscal imbalance on economic growth has been subject of great interest and controversy in the recent years. In context of an increasing fiscal imbalance of the government there is a widely held consensus among economists that this large fiscal imbalance poses a risk to macroeconomic stability and domestic growth objectives of the country. Therefore, correcting fiscal imbalance, while continuing to achieve growth objectives, has long been the foremost challenge of policy makers and fiscal experts in the country. The Indian policy makers are of the opinion that the role of fiscal policy is vital in inducing economic growth; but, they too, do not ignore the costs of fiscal deficits. The magnitude of government fiscal surplus or deficit is probably one of the most important statistics used to measure the impact of government fiscal policy on the economy (Siegal, 1979; Tanzi and Blejer, 1984). Therefore, the size of the fiscal imbalance is widely believed to be a key indicator of the overall stance of fiscal policy in India.

However, there is no consensus among Indian economists on the impact of fiscal deficit on economic growth. One argument follows the concepts put forth by the Neoclassical school, they assumes full employment and advocates competitive markets against government interventions. The Neoclassical loanable funds theory explains that the balancing of saving and investment will be solved by the interest rate mechanism. The malfunctioning or slow operations of this mechanism are attributed to the short-term

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variations in employment and output. In case of an increase in government spending, interest rate has to increase to bring the capital market into equilibrium and crowd out private investment. Thus Neoclassical economists suggests that *ceteris paribus*, because of high deficit a reduction in government saving cause interest rate to rise, investment to fall and economic growth to slow down. According to Acharya (2003)\(^6\), after mid nineties fiscal deficit and revenue deficit increased which caused the decline in gross domestic saving and investment and thereby contributed to slowdown in economic growth in India. The report of the Prime Minister’s Economic Advisory Council (EAC, 2001) says that the high fiscal deficit by rising real rate of interest crowd out private investment particularly if government borrowing is used for financing of revenue deficits.

Contrary to this, the Keynesian school supports the idea that a budget deficit, by the working of the multiplier, has a positive effect on the macro economy and growth, if resources in the economy are initially under employed. Those supporting the Keynesian approach argue that Indian economy was demand constrained economy and therefore increase in fiscal deficit due to public sector investment would not generate inflationary pressure in the economy, and due to public sector investment, especially in infrastructure stimulates growth in the private sector and so resulting in higher overall economic growth.

Another view that differs from above two views is Ricardian Equivalence view argued that there is a neutral relationship between budget deficit and economic growth. The hypothesis, familiarized in the seminal work of Barro (1989)\(^7\), proposes that foreseeing higher tax liabilities (because of current fiscal operations), people would save more and consume less. As a result, an inter-temporal shift between taxes and budget

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deficit does not impact the real interest rate, the quality of saving and investment or the current account balance. However, empirical support in favor of the Ricardian view seems to be weak. Ghatak and Ghatak (1996)\textsuperscript{8} examined the validity of Ricardian view for India by using the co-integration and rational expectation model. Both of them invalidate the Ricadian Equivalence Hypothesis for Indian Economy.

As the empirical studies support both the Neoclassical and Keynesian views for India, it is important to examine the relationship between fiscal deficit and economic growth in India and how has the persistent increase in the fiscal deficits impacted India’s economic growth over the last four decades. Hence, the third objective of this study is to examine what has been the effect of fiscal deficit on economic in the country over the years.

Therefore as noted above, three important concerns arise from high level of fiscal imbalance. The first one relates to the deterioration in the quality of public finances of the central government. Second one relates to the assessment of fiscal imbalance position of the central government. The third concern is: what is the relationship between fiscal deficit and economic growth of India. In other words, whether it is positively or negatively affects the growth rate of the country?

1.3 Research Gaps

Fiscal imbalance is one of the important issues which attracted a lot of research and policy attention among the economists and the policy makers, in developed as well as in less developed countries over the past few decades. There are many studies looking at the trends and causes of fiscal imbalance in Indian context. Krishnamurthy (1984), Pandit (1984), Pani (1984) etc (a detailed empirical review of literature is presented in Chapter 2), examine the impact of public debt and deficit on other macroeconomic variables with emphasis on fiscal accounts. These and later models had peripheral focus on fiscal sector

mainly used to highlight the fiscal-monetary nexus. A relatively elaborate attempt was made by Rangarajan, Basu and Jadhav (1989) to assess the impact of money financed deficit on inflation. Rangarajan and Mohanty (1997) assessed the relationship between fiscal deficit, external balance and monetary growth. Rao (2000) also assessed the fiscal impact on interest rate and inflation, limited to formalising the links between budget deficits, money creation and debt financing. The Report of the Economic Advisory Council (EAC, 2001) stresses that high fiscal deficits, by raising real interest rates, crowd out private investment, especially in the context of the government borrowing being predominantly used to finance revenue deficits. The EAC observed that the existing level of public debt is “too high… and clearly unsustainable”. Notwithstanding the efforts at modeling fiscal deficit and its effect on other macro variables and economic growth for stabilization within macroeconomic models, needs further research in a more open economy framework.

Further, The studies by Ahluwalia (2002), Pinto and Zahir (2004) Rangarajan and Srivastava (2005), Murty and Soumya (2007) among others mainly focused on interrelationship between interest rate, debt, money supply, Private investment and public investment in relation to change in budget deficit/fiscal deficit. Kumar and Soumya (2010) attempted to quantify the relationship between GDP growth and fiscal deficits taken as percentage of GDP, estimated a simple regression equation. Further, Mallick (1999), Srivyal and Venkata (2004), Mohanty (2012) examined the interaction of budget deficit with other macroeconomic variables using co-integration approach and variance error correction model (VECM). However, there are limited studies at the empirical level specifically looking into the relationship between fiscal deficit and economic growth of the central government from a long-term perspective in India. Therefore this direction needs further research in more advance framework.
1.4 Significant of the Study

This study aims to contribute to the literature by examining the three interrelated issues i.e. (a) trend and composition of central government finances, (b) assessment of fiscal imbalance situation of the central government and (c) log-run relationship between fiscal deficit and economic growth in India. The time coverage period considered for the study is longer than what had been considered in the previous studies. With help of this research, the policymakers will have a better understanding of the issues relating to fiscal policy and will help them in tracking issues of rising fiscal imbalance and widening fiscal deficits. Thus, this study carries significant in terms of both research work and policy making.

Previous research has revealed that there are conflicting views of the impact of deficit on growth. This study will be instrumental in evaluating the merits of these views. By empirically determining the relationship between fiscal deficit and economic growth, the findings of this study will help to answer some of the stated problems surrounding the topic of research i.e. how fiscal deficit affects growth in the long run, whether or not it actually translate into economic well being. It is important to determine this because for the case of India, fiscal deficit are normally financed through debt. Therefore an ineffective deficit not only fails to achieve the objective of stimulating growth, but also further burdens the country’s debt level.

Thus, findings of this study will also aid policymakers in budget decision making and also serve a guideline to maintain the budget deficits at levels that will not be detrimental to economic growth. Therefore, this research study has both theoretical as well as practical importance.

1.5 Objectives

Given this background, the study focuses on the fiscal imbalance and economic growth in the country and it has following set of specific objectives.
1. To examine the trend and composition of central government finances.
2. To critically evaluate the fiscal imbalance situation of the central government.
3. To examine the impact of fiscal deficit on economic growth in the India.
4. To draw policy implications.

1.6 Methodology

This study intends to investigate the fiscal imbalance position of the central government and economic growth in India, with all important issues listed in the objectives of the study. The research study is exclusively based on secondary data. The study used both descriptive statistics and econometric techniques to analysis the above objectives. This study also used graphs, charts and tables for data presentation.

Data Sources

All the data used in this study covering the sample period of 1970-71 to 2011-12. For collecting the required data, the study primary relies on flowing sources:

a) Annual reports published by the Reserve Bank of India (RBI)
b) Ministry of Finance, Public Finance Statistics, various years
c) Budget documents and Economic Survey of India, various years
d) Reports of the Central Statistical Organization (CSO)

The specific data collected from a particular source and the way it is computed are mentioned in respective chapters.

Test of Hypothesis

To achieve the stated objectives, the following hypotheses were tested.

1. Revenue expenditure is the main culprit of the growing imbalances of the central government finances.
2. The prudent regarding fiscal and revenue deficit should remain the principle objective of the central government.
3. Fiscal programme of the central government has to be maintained within affordable limits.

4. There is a negative long-run relationship between fiscal deficit and economic growth in India.

**Analytical Techniques**

In order to examine the first objective i.e. trend and composition of central government finances, the data collected and complied into different tables and accordingly tabulation analysis is furnished. The data is also explained graphically, as percent of GDP which ever applicable to strengthen the analysis.

For evaluating the second objective i.e. fiscal imbalance situation of the central government, a critical analysis of Indian fiscal situation is undertaken. In view of having a look at the fiscal trend of the central government, data presentation has been strengthened by charts, tables and graphical presentation.

A mathematical model (i.e. regression equation) was used for the examining the third objective, that is the impact of fiscal deficit on economic growth. Appropriate econometric techniques were employed to estimate the mathematical model. The following log linear multiple regression equation was used to estimate the model:

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\ln \text{GDP} = \beta_0 + \beta_1 \ln (\text{GDCF}) + \beta_2 \ln (\text{FD}) + \beta_3 \ln (\text{INF}) + \beta_4 \ln (\text{MS}) + \beta_5 \ln (\text{EX}) + \beta_6 \ln (\text{IM}) + \varepsilon
\]

Where,

- GDP = Gross Domestic Product at Factor Cost at Constant Prices in Rs. Billion
- GDCF = Gross Domestic Capital Formation at Constant Prices in Rs. Billion
- FD = Gross Fiscal Deficit in Rs. Billion
- INF = Inflation Index: Whole Sale Price Index (WPI)
- MS = Money Supply (Broad Money Supply Measure M3) in Rs. Billion
- EX = Exports in Rs. Billion
IM = Imports in Rs. Billion
\( \varepsilon = \) Stochastic Error Term

Where, \( \beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 \) are the respective parameters. All the variables are expressed in natural logarithms.

The analytical and econometric techniques used to estimate the mathematical model are descriptive statistics and correlation matrix, unit root tests (Augmented Dickey Fuller test and Philips-Perron tests), Johansen cointegration test, vector error correction model (VECM) and pair wise Granger Causality test.

Descriptive Statistics and Correlation Matrix: displays various summary statistics for the series. It contains basic statistics and statistics by classification i.e. Mean, Maximum and Minimum value, Standard Deviation, skewness and kurtosis of the series. A group series test (Correlation Matrix) is also conducted to find the extent of correlation among the variables used in the estimation.

Unit Root Test: The use of time series analysis in our study of impact of fiscal deficit on economic growth requires us to deal with certain properties of time series data such as stationarity problem. A stochastic process is said to be stationary if its mean and variance are constant over time and the value of the covariance between the two time periods depends only on the distance between the two time periods and not on the actual time at which the covariance is computed (Gujarati, 2012). When time series data are not stationary and used in an econometric equation, there is the problem of spurious regression, which leads to unreliable results. In order to avoid this problem, it is necessary to investigate the time series data for their stationary properties. In order to investigate stationary problem this study has used the Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests.

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**Johansen Cointegration Test:** In case of non stationary data it is quite possible that there is a linear combination of integrated variables that is stationary; such variables are said to be cointegrated. Cointegration is the statistical implication of the existence of a long-run relationship between economic variables. To test the existence of long run relationship among variables this study uses the Johansen Cointegration Test.

**Vector Error Correction Model:** If cointegration has been detected between series we can conclude there exists a long-term relationship between variables. Therefore estimation of vector error correction model (VECM) model is required to detect the long-run as well as short run relationship between variables. Hence, this study applied Vector Error Correction Model in order to evaluate the short run properties of the cointegration series. In case of no cointegration VECM is no longer required and we directly precede to Granger causality tests to established casual links between variables.

**Pair Wise Granger Causality Test:** A degree of correlation between two variables does not necessarily mean there is a casual relationship between them; it simply may be attributable to the common association of a third variable. Detecting casual relationship among set of variables, is one of the objectives of empirical research, so this study used Granger Causality Test to search for causal relationships. The concept of causality in the Granger approach is mainly based on the assumption that the future cannot cause the past; rather the past and present causes the future. The Granger (1969)\(^1\) approach to the question of whether deficit causes growth is to see how much of the current growth can be explained by past values of growth. Growth is said to be Granger-caused by deficit if deficit helps in the prediction of growth. To investigate the causality between GDP, deficit and other variable mentioned in the model, this study performed Pair wise Granger Causality Test.

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The fifth objective is to draw conclusion and policy implication on the basis of empirical results and the analysis of government finances and past fiscal policies followed in India.

The Econometric and statistical work in this study was done using Statistical Package for the Social Science (SPSS) and Econometric views (E Views). SPSS and E Views are one of the most widely available and powerful statistical software packages that cover a broad range of statistical procedures, which allows a researcher to summarized data (e.g. compute means and standard deviations), determine whether there are significant differences between groups (e.g. t-tests, ANOVA), examine relationship between variables (e.g. correlation, multiple regression), graph results (i.e. bar charts, line graphs) and advance econometric modeling (e.g. vector error correction model and granger causality test).

1.7 Limitation and Scope of the Study

Due to the analytical nature of the study which probes into some public finances of the central government of India, several limitations need to be mentioned. These limitations are as follows:

1. The variables used in this study such as fiscal deficit, government expenditure and revenue, gross domestic product, etc are macroeconomic variables. The only way to obtain data for these variables, as is usually the case when studying the economy, is through some ministry, government agencies or government reports such as Ministry of Finance, Reserve Bank of India (RBI), Central Statistical Organization (CSO), Budget documents and Economic Survey of India.

The data provided by theses agencies are not under the control of the researcher. Therefore, the accuracy of the data and the methodology used in their calculation and presentations are assumed to be consistent and obtained with the highest
scientific rigor. Any deviation from this assumption would be considered as an uncontrollable limitation to this study.

2. The results of the entire study are limited to the central government of India for the year 1970-71 to 2011-12. The results of this study may not be applicable to countries with different economic or political conditions including the developing countries.

3. As mentioned above, the coverage of the study is confined to the central government fiscal imbalance situation. The problem arising out of state government and consolidated government fiscal imbalance position and their implication fall outside the scope of the study.

4. This study is strictly in isolation. This is not a comparative study of two or more than two states of India or countries. This research study is simple analytical study.

1.8 Chapter Organization of the Study

The present study consists of six chapters and it is briefly presented below:

Chapter 1 presents a brief introduction about the study in terms of emerging issues in the context of rising level of fiscal imbalance position of the central government. In this respect, the study tries to find out research gaps in the existing literature in the Indian context, and tries to fill up the gaps by setting up clearly defined objectives.

Chapter 2 outlines the theoretical and empirical review of literature, concerning the impact of high fiscal imbalance on economic growth and macro economy.

Chapter 3 analyses the trend pattern and compositional character of central government finances. This chapter also discusses the fiscal system and fiscal sector reform in India.
Chapter 4 critically analyzes the fiscal imbalance position of the central government. This chapter also discusses the root causes of fiscal imbalance and Fiscal Responsibility and Budget Management Act (FRBM Act) of the central government.

Chapter 5 empirically evaluates the impact of fiscal deficit on economic growth in India. This chapter develops an econometric model and applies similar econometric techniques for examining the impact of fiscal deficit on economic growth in India.

Chapter 6 summarizes the major conclusions derived from the whole thesis, and policy suggestions.