***Original Research Article***

# Emerging Trends of Central Government Deficit Indicators in India


## ABSTRACT

*After the implementation of Fiscal Responsibility and Budget Management (FRBM) Act in India, a debate has been started among the economists as to the relevance of the deficit cutting strategy. This study analyses the emerging trends of central government's major deficit indicators viz., fiscal deficit, revenue deficit and primary deficit in Indian economy from 1980-81 to 2015-16. The study period has been divided into three sub-periods i.e. pre-liberalisation period (from 1980-81 to 1990-91), post liberalisation period till FRBM Act (from 1990-91 to 2002-03) and the post Fiscal Responsibility and Budget Management (FRBM) Act (from 2003-04 to 2015-16) in reply to the worldwide financial crisis and succeeding return to a fiscal consolidation path. The finding point out that the crisis led to the burgeoning of the government deficit to unsustainable levels and encouraged the government to initiate and adopt economic reforms during the study period 1980-81 to 2002-03 and also ensure that the deficit stood at more reasonable levels. On the other hand, the central government has been more proactive and has undertaken fiscal policy reforms to ensure a steady reduction in deficit indicators of central government leading to a more resilient economy after the implementation of FBRM. The study suggested that for fiscal reforms to succeed, continued high economic growth is a prerequisite which in turn requires strong social and economic infrastructure.*




**Keywords:** *Deficit indicators; Fiscal Deficit; Fiscal consolidation; FRBM Act and Public*

## INTRODUCTION

In the initial phase of economic reforms (1991), Indian economy has been initiated amidst a gloomy economic crisis and it faced a number of economic crises-or what may better be called as “macro-economic imbalances”. India’s foreign exchange reserves had dipped from US $ 3.4 billion at end-March 1990 to a low of US $ 975 million on July12, 1991, equivalent to barely a week’s imports. The fiscal deficit of the central government of India was 8.3 per cent of the gross domestic product (GDP) and inflation rate rose to the peak level of 17.1 percent in July 1991. The fiscal imbalance was identified as the root cause of the twin problems of inflation and the difficult balance of payments position [Economic Survey, 2006-07]. Therefore, one of the chief features of the reform strategy was reduction of fiscal deficit. Since then, policymakers have been obsessed with reduction of deficit, as is borne out by the Fiscal Responsibility and Budget Management Act (FRBMA, 2003). However, since then, the situation of the economy has undergone much change. The reform package launched in the early 1990s was a measure taken in haste and was, more or less, a crisis-driven strategy. In the changed economic scenario, there is an intense debate among the economists as to the relevance of the deficit-cutting strategy has, there is, by definition, a tension between fiscal restraint and finding resources for all the expenditure needs of the government [Rangarajan and Subbarao, 2007].

At that time, there were 240 public sector enterprises (PSEs) of the central government and several hundred PSEs owned and managed by the states and the UTs. Theoretically speaking, the deficit measures should take all these as well as governments at local levels, e.g., municipalities and panchayat into consideration while computing various deficit variables. For macroeconomic analysis, however, the present study will concentrate on the deficit indicators of the central government only. "The fiscal operations as well as the deficit at the local level, however, are known to be relatively small compared to those of the centre, states and UTs” [Lahiri, 2000].

Fiscal deficit is the difference between the government's total expenditure and its total receipts, excluding borrowings [Bhattacharya, 2002]. Revenue deficit measures the excess of expenditure on revenue account over receipts on revenue account. Revenue deficit indicates the extent to which current receipts are not able to cover revenue expenditures necessitating borrowing to finance current expenditure. Further, revenue deficit indicates the extent to which capital receipts are being used by the government to finance consumption expenditure - a situation that is clearly not viable or desirable in the long run. Deshmukh, *et.al.*(2006), put it in an interesting way. “Drawing a layman analogy, it's like taking a loan for feeding the village at your daughter's wedding. The loan has to be repaid, but no additional productive assets have been created with which to repay.” Primary deficit represents fiscal deficit sans interest transactions. Other measures of deficit described above include payments or receipts of interest. These transactions, however, reflect a consequence of past actions of the government relating to loans taken and advanced in years prior to the one under consideration. Exclusion of interest transactions, therefore, enables us to see the way the government is currently conducting its financial affairs. Primary deficits accumulate into debt, unless offset by an excess of GDP growth rate over interest rate [Report of 12th Finance Commission, 2003].

It is in this context, the present paper has examined the emerging trends of central government’s deficit indicators viz. fiscal deficit, primary deficit and revenue deficit in Indian economy during the period 1980-81 and 2015-16. The study period has been divided into three sub-periods i.e. pre-liberalisation period (from 1980-81 to 1990-91), post liberalisation period till FRBM Act (1990-91 to 2002-03) and post FRBM Act (2003-04 to 2015- 16) for covering the trends across major economic events related to fiscal discipline. This paper has also suggested some fiscal policy reforms to ensure a steady reduction in deficit indicators to a more resilient Indian economy.

**DATABASE AND RESEARCH METHODOLOGY**

To examine the major trends of central government’s deficit indicators in Indian economy, gross fiscal deficit, gross primary deficit and gross revenue deficit in actual value and as percent of gross domestic product has been analysed by using time series data during the period 1980-81 to 2015-16. Several data sources have been used for the purpose of analysis and it has been collected from the Reserve Bank of India (RBI) website. The study has been divided into three sub-periods i.e. pre-liberalisation period (from 1980-81 to 1990- 91), post liberalisation period till FRBM Act (1990-91 to 2002-03) and the post FRBM Act (2003-04 to 2015-16) for analysing the emerging trends of deficit indicators with respect to fiscal measures taken by the government of India.

The exponential model, $y = a\, b^t\, e^u$ has been fitted to the time series data for estimating compound annual growth rate (CAGR) of gross fiscal deficit, gross primary deficit and revenue deficit during the three sub-periods of the study. The logarithmic form of exponential function is given by;

$$\ln(y) = \ln(a) + t \ln(b) + u$$

Where, y is the dependent variable whose compound annual growth rate (CAGR) is to be estimated, t is the independent variable (time period), u is the disturbance or error term, a and b are the parameters to be estimated from sample observations. The regression coefficient b is estimated by ordinary least squares (OLS) technique. The Compound Annual Growth Rate (CAGR) in per cent term is estimated as:

$$CAGR = \{antilog\ (b) - 1\}*100$$

**EMERGING TRENDS OF CENTRAL DEFICIT IN INDIA**

The trend analysis of deficit has been divided the trends into three parts namely; era of pre liberalisation (from 1980-81 to 1990-91), period of post liberalisation and till Fiscal Responsibility and Budget Management (FRBM) Act 2003 (from 1990-91 to 2002-03) and period of the post Fiscal Responsibility and Budget Management (FRBM) Act 2003 (from 2003-04 to 2015-16) in the light of major fiscal measures.

**Era of Pre-Liberalisation (1980-81 to 1990-91)**

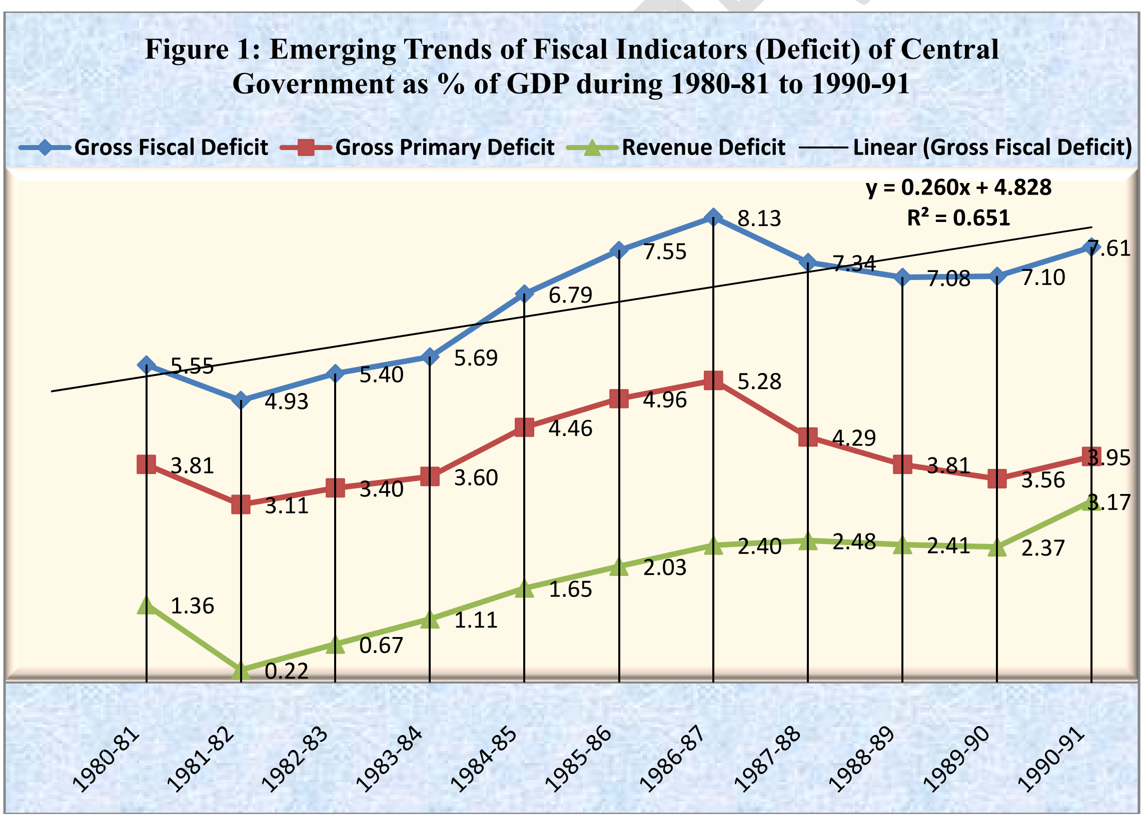
Before 1990-91, the balance of the economic structure was titled more towards socialism due to the nature of Indian economy. The vision of the policy makers was that post-independence the country needed significant revenue expenditure into key long term industries and government projects, which the private sector may not undertake as these initiatives had a long gestation period. Also in order to be in control of economy the government policies restricted the private sector in engaging into certain strategic sectors in India. Consequently a protectionist approach most of the capital expenditure was being funded by the government sector and its put a lot of economic burden on the government to continue incurring capital expenditure. Therefore, it creates high level of fiscal and other deficits

The emerging trends of deficit indicators of the central government and its compound annual growth rate (CAGR) are shown in Table 1 during 1980-81 to 1990-9, i.e., Era of Pre Liberalisation. The trends of fiscal deficit, revenue deficit and primary deficit clearly show the rising trends during this period. The result indicates that the compound annual growth rate of fiscal deficit, revenue deficit and primary deficit has been found 19.01, 36.38 and 15.85 respectively. The emerging trends of fiscal indicators of central government as per cent of gross domestic product (GDP) are shown in Figure 1. It shows that the fiscal deficit of the rose sharply from 5.55 per cent of GDP in 1980-81 to 7.61 per cent of GDP in 1990-91 during the period.

## RESULTS AND DISCUSSION

| Table 1 : Emerging Trends of Deficit Indicators of the Central Government from 1980-81 to 1990-91 | | | |
|---|---|---|---|
| (₹ Crore) | | | |
| **Year** | **Gross Fiscal Deficit** | **Revenue Deficit** | **Gross Primary Deficit** |
| **1980-81** | 8299 | 2037 | 5695 |
| **1981-82** | 8666 | 392 | 5471 |
| **1982-83** | 10627 | 1308 | 6689 |
| **1983-84** | 13030 | 2540 | 8235 |
| **1984-85** | 17416 | 4225 | 11442 |
| **1985-86** | 21858 | 5889 | 14346 |
| **1986-87** | 26342 | 7777 | 17096 |
| **1987-88** | 27044 | 9137 | 15793 |
| **1988-89** | 30923 | 10515 | 16645 |
| **1989-90** | 35632 | 11914 | 17875 |
| **1990-91** | 44632 | 18562 | 23134 |
| **CAGR (%)** | **19.01** | **36.38** | **15.85** |

*Source: Author's calculation based on RBI database*

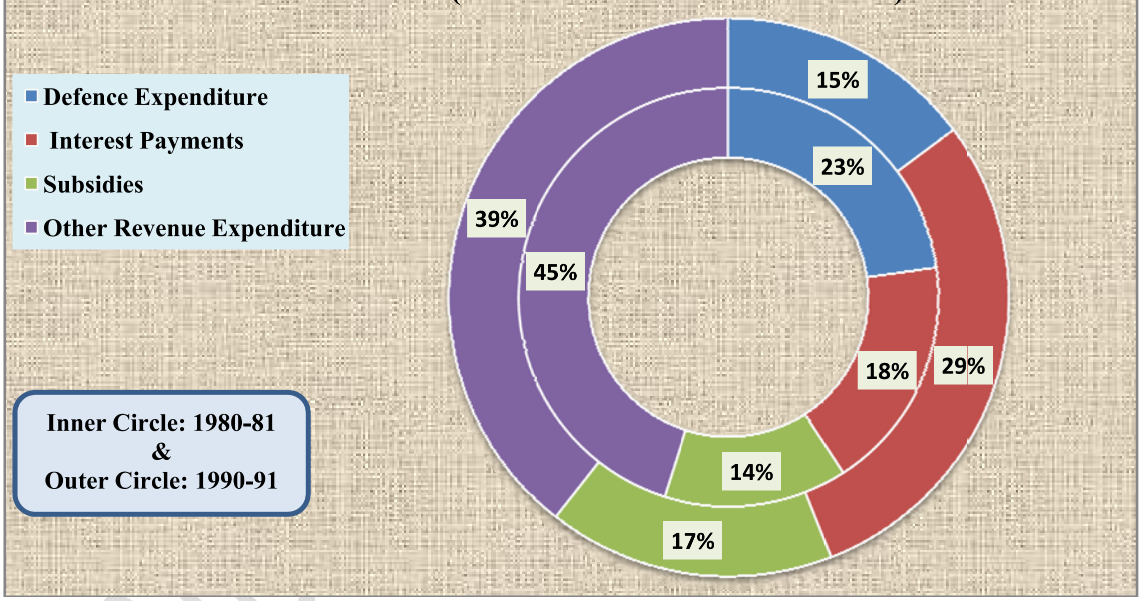



*Source: Author's calculation based on RBI database*

It indicated fast deterioration of the fiscal equilibrium mainly attributable to unimpeded growth rate of revenue expenditure major head viz., interest payments and subsidies rose sharply during 1980s. With respect to the revenue deficit (RD), as the higher interest payments led revenue deficit as per cent of gross domestic product (GDP) to increase from

1.36 per cent in 1980-81 to 3.17 per cent in 1990-91. During the beginning 1980's, the major rise in the deficits was on account of debt servicing, the primary deficit (PD) did not go up considerably. Primary deficit as a per cent of the GDP changed from 3.81 per cent in 1980-81 to 3.95 per cent by 1990-91. Figure 2 represents the composition of central government revenue expenditure during the period 1980-81 to 1990-91. The contribution of interest payments and subsidies as per cent of the revenue expenditure rose from 18.0 per cent and 14.0 per cent in 1980-81 to 29.0 per cent and 17.0 per cent in 1990-91 respectively. During this period, the contribution of defence in revenue expenditure and other revenue expenditure has declined from 23.0 per cent and 45.0 per cent in 1980-81 to 15.0 per cent and 39.0 per cent in 1990-91 respectively.

**Figure 2: Composition of Central Government Revenue Expenditure (Year: 19980-81 and Year: 1990-91)**




*Source: Author's calculation based on RBI database*

**Post Liberalisation Period (From 1990-91 till FRBM Act, 2002-03)**

The fiscal position of Indian economy was quite weak during 1989-90 and the country was burdened with heavy debt rising interest costs and heavy deficit. India conventionally had a current account deficit (CAD) with major portion of the imports being that of oil and petroleum products. The another reason of bad fiscal situation of India was Gulf-war which led to rise in oil prices coupled with drying up of credit lines and investors pulling out money. The foreign exchange reserves of India had depleted significantly and the level of reserves was only sufficient to finance imports of only three weeks. In response to these fiscal crises, the government of India commenced on the path of liberalisation, globalisation and privatisation (LPG), whereby the economy was opened up to foreign investment and trade, the private sector was encouraged and the system of quotas and licenses were dismantled. The measures proposed by government to meet the fiscal crisis are often referred to as the New Economic Policy (1991). The government of India also brought in fiscal reform in the tax structure of the country and decrease the non-capital expenditure. The reforms were calibrated to bring for short term, medium and long term about revenue neutrality to enhance revenue productivity of the tax system of the nation.

The emerging trends of gross fiscal deficit, revenue deficit and primary deficit from 1990-91 to 2002-03 are given in Table 2. The compound annual growth rate (CAGR) of revenue deficit has been found highest followed by gross fiscal deficit and gross primary deficit during this period. Figure 3 represents the emerging trends of gross fiscal deficit, revenue deficit and primary deficit as per cent of GDP during the period 1990-91 to 2002-03.The results show that there is slightly decline in case of gross fiscal and primary deficit as a per cent to GDP during the post reform period to FRBM act 2003. The deficit indicators viz., revenue and primary deficits had been quite significant impacted by the economic reform. These policies insights bring with itself a new approach, the central government not only liberalised the licensing policy but also began with the disinvestment of the public venture. Furthermore, economic reform had twin effects i.e., lowering the capital expenditure and increased the capital receipts. During this era, there was steady decline in the gross primary deficit (GPD) as per cent of gross domestic product (GDP).



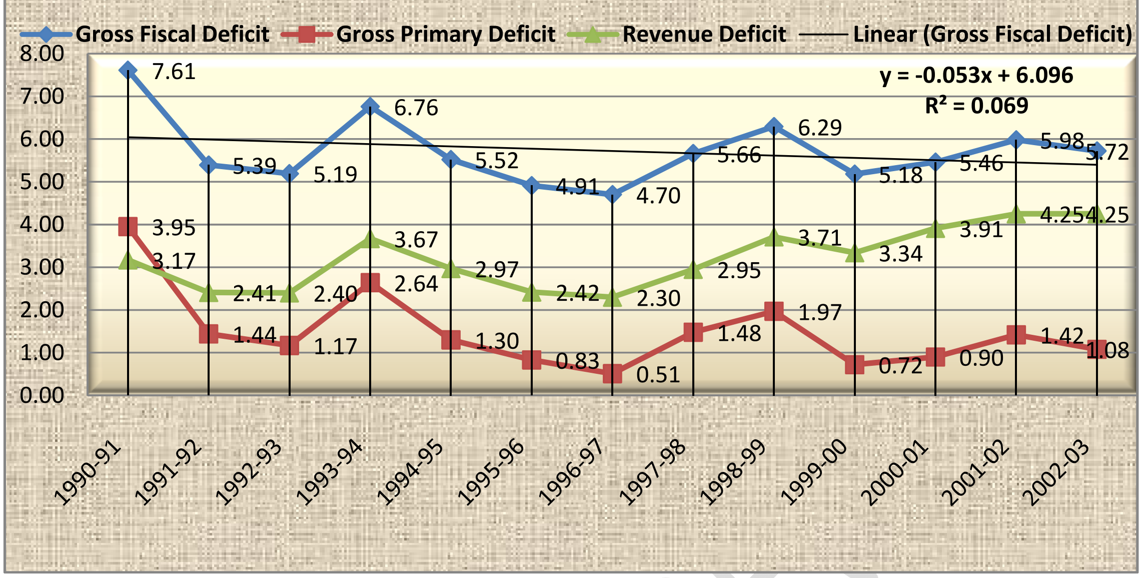
**Table 2 : Emerging Trends of Deficit Indicators of the Central Government from 1990-91 to 2003-04**

(₹ Crore)

| Year | Gross fiscal deficit | Revenue deficit | Gross primary deficit |
|---|---|---|---|
| **1990-91** | 44632 | 18562 | 23134 |
| **1991-92** | 36325 | 16261 | 9729 |
| **1992-93** | 40173 | 18574 | 9098 |
| **1993-94** | 60257 | 32716 | 23516 |
| **1994-95** | 57703 | 31029 | 13644 |
| **1995-96** | 60243 | 29731 | 10198 |
| **1996-97** | 66733 | 32654 | 7255 |
| **1997-98** | 88937 | 46449 | 23300 |
| **1998-99** | 113349 | 66976 | 35466 |
| **1999-00** | 104716 | 67596 | 14467 |
| **2000-01** | 118816 | 85234 | 19502 |
| **2001-02** | 140955 | 100162 | 33495 |
| **2002-03** | 145072 | 107879 | 27268 |
| **CAGR (%)** | **12.59** | **17.86** | **6.52** |

*Source: Author's calculation based on RBI database*

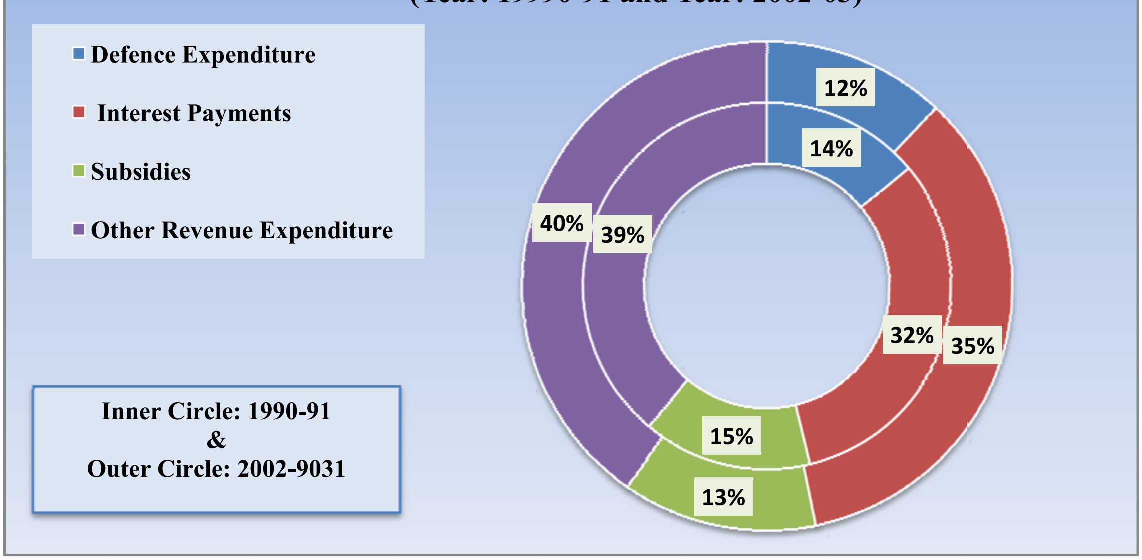
**Figure 3: Emerging Trends of Fiscal Indicators (Deficit) of Central Government as % of GDP during 1990-90 to 2002-03**




*Source: Author's calculation based on RBI database*

Figure 4 represents the composition of central government revenue expenditure during the post reform period to FRBM act 2003 (1990-91 to 2002-03). The result indicates that the proportion of interest to total revenue expenditure rose from 32.0 per cent in 1990-91 to 35.0 per cent in 2002-03 during this period. Over the same period share of subsidies has been decreased slightly from 15.0 per cent in 1990-91 to 13.0 per cent in 2002-03. In this decade, the significant efforts were also made to reduce subsidies and cut down the non-capital expenditure.

**Figure 4: Composition of Central Government Revenue Expenditure (Year: 19990-91 and Year: 2002-03)**




*Source: Author's calculation based on RBI database*

As noted by Ahluwalia (2002), the monsoon Gods were on the side of the reformers. But the success proved to be too good for India's own good. As the crisis faded, so did the resolve to be fiscally prudent. Fiscal deficit jumped back to 7.01 per cent in 1993-94, before retreating in steps to 5.70 per cent, 5.07 per cent and 4.88 per cent in the three subsequent years. Thus, during this period, the process of fiscal consolidation of the central government has been characterized by a "stop-go pattern". On the whole, this period was a very encouraging period, which can be associated with decreasing deficits and increasing growth rates. [Acharya, 2006]

**Post Fiscal Responsibility and Budget Management (FRBM) Act (2003-04 to 2015-16)**

In order to restore fiscal discipline in India, the Fiscal Responsibility and Budget Management (FRBM) bill introduced in parliament in 2000. The FRBM Bill has been approved in 2003 by both the Houses of Parliament. The Fiscal Responsibility and Budget Management (FRBM) Act 2003 was brought into force in 2004 and gave a medium term target for assessment current revenues and expenditures heads. The FRBM Act 2003 set overall limits to the gross fiscal deficit at 3.0 per cent of gross domestic product (GDP) to be achieved according to a phased deficit reduction roadmap. This act also enhanced budgetary transparency by requiring the government to place before the Parliament on an annual basis reports [Shome, 2006]. The emerging trends of gross fiscal deficit, revenue deficit and primary deficit from 2003-04 to 2015-16 are presented in Table 3.

**Table 3 : Emerging Trends of Deficit Indicators of the Central Government from 2003-04 to 2015-16**

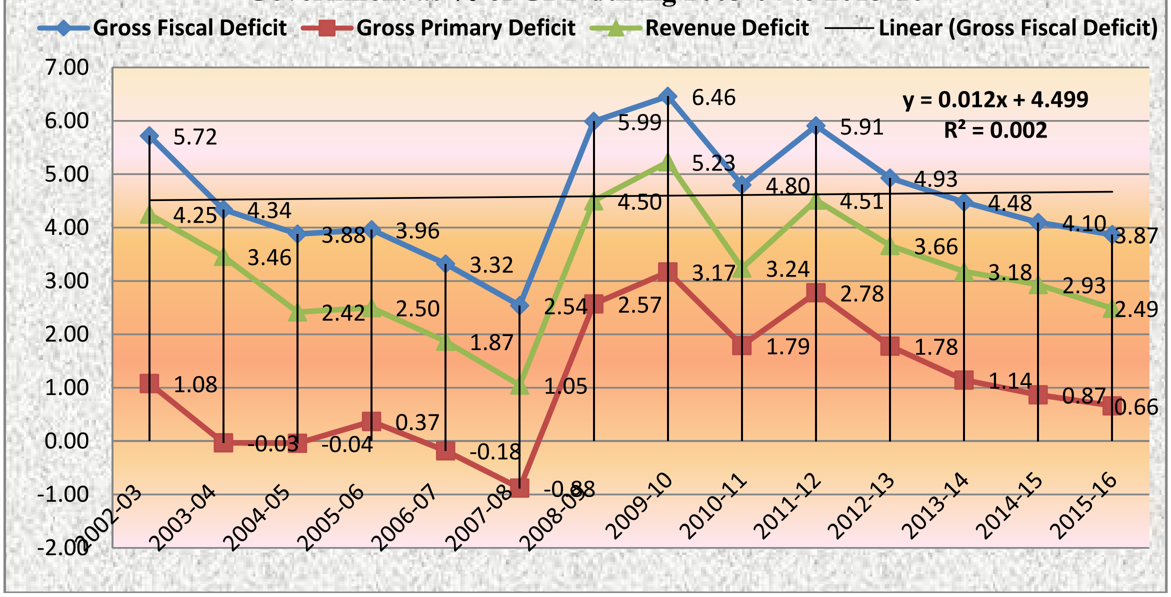
(₹ Crore)

| Year | Gross fiscal deficit | Revenue deficit | Gross primary deficit |
|---|---|---|---|
| **2003-04** | 123273 | 98261 | -815 |
| **2004-05** | 125794 | 78338 | -1140 |
| **2005-06** | 146435 | 92300 | 13805 |
| **2006-07** | 142573 | 80222 | -7699 |
| **2007-08** | 126912 | 52569 | -44118 |
| **2008-09** | 336992 | 253539 | 144788 |
| **2009-10** | 418482 | 338998 | 205389 |
| **2010-11** | 373591 | 252252 | 139569 |
| **2011-12** | 515990 | 394348 | 242840 |
| **2012-13** | 490190 | 364282 | 177020 |
| **2013-14** | 502858 | 357048 | 128604 |
| **2014-15** | 510725 | 365519 | 108281 |
| **2015-16** | 532791 | 342736 | 91132 |
| **CAGR (%)** | **14.94** | **15.53** | **NA** |

*Source: Author's calculation based on RBI database*

The trend of fiscal indicators viz., fiscal deficit and revenue deficit clearly shows the rising trends during this period of the study. On the other hand, the trends of gross primary deficit indicates the highly fluctuation. All the fiscal indicators has been declined sharply from 2003-04 to 2007-08, then after all indicator has increased multiple times due 2008 global recession. The CAGR result indicates that the growth rate of fiscal deficit and revenue deficit has been found 14.94 and 15.53 respectively. The emerging trends of fiscal indicators of central government as per cent of gross domestic product (GDP) are shown in Figure 5. The Figure depicted that during 2003-04, fiscal deficit was 4.34 per cent, which declined to 3.32 per cent and 2.54 per cent in 2006-07 and 2007-08 respectively. As a result, the revenue deficit also declined 3.46 per cent in 2003-04 to 1.05 per cent during 2007-08. The gross primary deficit remained about zero during the period 2003-04 to 2007-08. The global recession 2008 that emanated from the United States (US) led to liquidity and solvency problems all around the world. While India, like other developing countries, did not have direct exposure to the global crisis 2008. The value of fiscal, revenue and primary as per cent of GDP was found highest in 2009-10 and after that the ratio has been declined sharply with respect to these fiscal indicators.

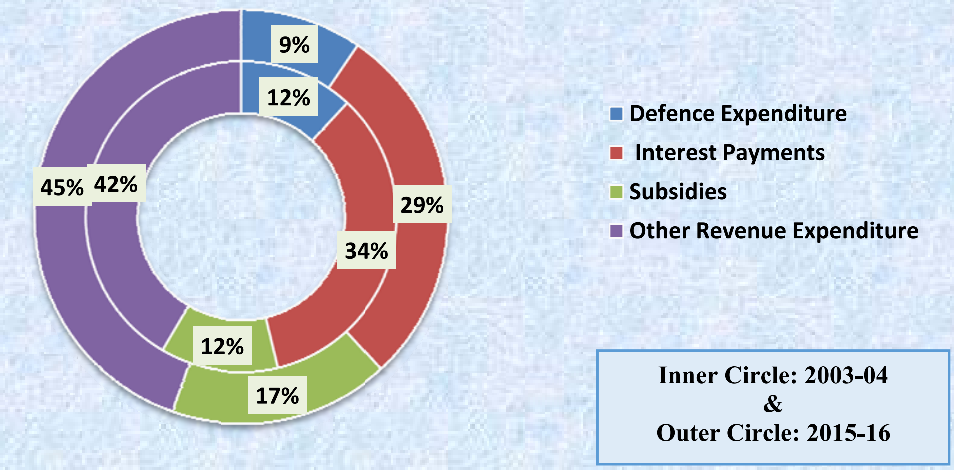
**Figure 5: Emerging Trends of Fiscal Indicators (Deficit) of Central Government as % of GDP during 2003-04 to 2015-16**




*Source: Author's calculation based on RBI database*

Figure 6 represents the composition of central government revenue expenditure during the post FRBM act 2003 (2003-04 to 2015-16). The main objectives of fiscal consolidation are bringing down the share of interest expense in the revenue expenditure. It did achieve the desired results, with interest outlay as share of revenue expenditure reducing from 34 per cent in 2003-04 to 29 per cent in 2015-16. The substantial decrease is also attributable to the defence expenditure.

**Figure 6: Composition of Central Government Revenue Expenditure (Year: 2003-04 and Year: 2015-16)**




*Source: Author's calculation based on RBI database*

During the mid decade of 2010, the central government of India had already scheduled to launch a few expansionary schemes such as loan waiver scheme, National Rural Employment Guarantee Act (NREGA) and the implementation 6th Pay Commission as compensations for the central public servants.

## CONCLUSION AND POLICY SUGGESTIONS

The present study has examined the trends of central government deficit indicators from 1980-81 to 2015-16. The result shows that the deficit indicators of central government have been found highest during 1986-87 to 1989-90 due to the Gulf-war. The mid 1990's Asian crisis lead it to move higher and fiscal deficit reached unjustified levels by 2002-03. As a sensible solution to the problem the Fiscal Responsibility and Budget Management (FRBM) Act 2003 was introduced which set out a phased reduction roadmap, this put the Indian economy on the right track however was faced with a interruption in the form of 2008 global credit crisis. Overall, from 1980-81 to FRBM act 2003, it was seen that the periods of fiscal crisis in the economy and its lead to the burgeoning of the deficit to unsustainable levels and prompted the government to adopt new economic reforms 1991 to ensure that the deficit stood at more sensible levels.

Moreover, the path to fiscal correction should essentially be revenue led with a check on non-developmental revenue expenditure. However, revenue expenditure includes grants aimed at asset creation, so reduction in those asset-creating grants also needs to be avoided. This study suggested paying attention to achieve fiscal discipline along with improving both allocative and technical efficiencies of public expenditure. There is a general consensus that fiscal deficits are not bad as such, but running high fiscal deficits along with high revenue deficits definitely seems to be dangerous. The foregoing discussion makes us believe that remaining committed to fiscal responsibility is expected to strengthen the present growth momentum. But any complacency among our policymakers on this count can be misplaced. So far the post-FRBMA journey has been impressive, but the future remains a challenge. For fiscal reforms to succeed, continued high economic growth is a prerequisite which in turn requires strong social and economic infrastructure. Capital expenditure on key areas such as socio-economic infrastructure must not become a victim of this fiscal discipline programme.



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