ANALYZING THE FISCAL PERFORMANCE OF INDIA: TRENDS, CHALLENGES, AND OPPORTUNITIES

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Abstract

This research paper analyzes the fiscal performance of India, focusing on trends, challenges, and opportunities in the Indian economy. The paper examines India's fiscal deficit, primary deficit, revenue deficit and debt sustainability, and investigates the impact of recent policy changes on the Indian economy. The findings of this research indicate that India's fiscal deficit has been persistently high, with an average of 5.7% of GDP between 2011 and 2020, leading to an increase in public debt. India's fiscal performance has been characterized by high fiscal deficits and public debt, with challenges related to tax reform, public expenditure management, and debt sustainability strategies. The paper provides policy recommendations to improve India's fiscal performance, with a focus on enhancing revenue mobilization, rationalizing public expenditure, and implementing debt sustainability strategies.

Keywords: Fiscal performance, Trends, Challenges, Opportunities, Debt sustainability, Public Expenditure Management

Introduction

India is one of the fastest-growing economies in the world, with a GDP of USD 2.7 trillion in 2020, making it the sixth-largest economy globally. The country has been experiencing rapid economic growth in recent years, with an average GDP growth rate of 7% between 2014 and 2019. This growth has been fueled by the country's growing population, rapid urbanization, and structural reforms, among other factors. However,

India's fiscal performance has been a significant area of concern for policymakers and analysts in recent years. Fiscal performance refers to the ability of a country to manage its public finances effectively. It is critical for policymakers to have a good understanding of a country's fiscal performance to be able to allocate resources, provide public services, and support economic growth. India's fiscal performance has been marked by persistent fiscal deficits and high public debt levels, which have implications for the country's economic growth and social welfare. Therefore, there is a need to understand the trends, challenges, and opportunities in India's fiscal performance. This research paper aims to analyze the fiscal performance of India, focusing on trends, challenges, and opportunities. The paper will examine the trends in India's revenue and expenditure, analyzing the fiscal deficit and debt sustainability, and explore the impact of recent policy changes on the Indian economy. Additionally, the paper will investigate sectoral performance, identifying challenges and opportunities for growth in agriculture, industry, and services.

Section 1: Overview of India's Fiscal Performance

India's fiscal performance has been a topic of concern for policymakers and analysts due to persistent fiscal deficits and high public debt levels. Fiscal deficit is the difference between a government's total revenue and its total expenditure, excluding borrowing. When a government's expenditure exceeds its revenue, it runs a fiscal deficit, which is often financed through borrowing. India's fiscal deficit has been persistently high, with an average of 5.7% of GDP between 2011 and 2020. This high deficit has contributed to a significant increase in India's public debt, which stood at 89.4% of GDP in 2020. The high fiscal deficit and public debt levels have implications for India's economic growth and social welfare. A high fiscal deficit can lead to inflation, as the government may resort to printing money to finance its expenditures, leading to a decrease in the value of the currency. High public debt levels can also lead to an increase in interest rates, which can deter investment and impede economic growth.

Section 2: Trends in India's Revenue and Expenditure

This section will analyze the trends in India's revenue and expenditure over the past decade. India's revenue has been growing steadily, with an average growth rate of 11% between 2010 and 2020. The growth in revenue has been driven by direct and indirect

taxes, with indirect taxes contributing a significant portion of total revenue. However, India's tax-to-GDP ratio remains low compared to other countries, with a ratio of 17.7% in 2019. India's expenditure has also been growing steadily, with an average growth rate of 12.4% between 2010 and 2020. The increase in expenditure has been driven by social sector spending, including education, health, and social security. However, India's public expenditure management.

Review Literature

India's fiscal performance has been a subject of much debate among policymakers and researchers. Many studies have analyzed the trends in India's revenue and expenditure, the sustainability of public debt, and the challenges facing the Indian economy. This literature review summarizes some of the key findings from previous studies on these topics. Several studies have analyzed the trends in India's revenue and expenditure. According to a report by the International Monetary Fund (IMF), India's revenue has been growing steadily, driven by direct and indirect taxes. However, the tax-to-GDP ratio remains low compared to other countries, suggesting potential for increased revenue mobilization.

A study by the Reserve Bank of India (RBI) also found that India's expenditure has been growing steadily, driven by social sector spending, but there are challenges in public expenditure management.

Another key area of research has been the fiscal deficit and debt sustainability. According to a study by the Indian Council for Research on International Economic Relations (ICRIER), India's fiscal deficit has been persistently high, with an average of 5.7% of GDP between 2011 and 2020. This has led to an increase in public debt, which stood at around 90% of GDP in 2020. A study by the World Bank also found that India's public debt was high and rising, with a risk of debt distress in the medium term. There have also been studies on sectoral performance in India, with a focus on challenges and opportunities for growth. A study by the National Institute of Public Finance and Policy (NIPFP) identified challenges in the agriculture sector, including low productivity, limited access to credit, and inadequate infrastructure. The same study also highlighted the need for investment in the industry and services sectors, which have the potential to drive economic growth.

Research Methodology

The purpose of this research is to analyze the fiscal performance of India, identify trends, challenges, and opportunities, and provide policy recommendations for addressing these issues. The research methodology will involve a combination of quantitative and qualitative methods, including data analysis, literature review.

Data Analysis

The data analysis will be conducted to understand the trends and patterns of India's fiscal performance over the last four decade. To analysis the Fiscal Deficit, Revenue Deficit and Primary Deficit, the data were used since 1981 to 2023. And to analysis Debt to GDP ratio data were used from 1990 to 2023. To analysis the repercussions of FRBM act. t-Test is used to measure the mean value of these time series data. Therefore, this will include analyzing, fiscal deficit, public debt, and Primary deficit. The data will be obtained from secondary sources, including government reports, international organizations, and academic research. The data will be analyzed using statistical software, such as SPSS and Excel, to generate descriptive statistics, charts, and graphs.

Hypothesis

- H0: Null Hypothesis

There is no significant difference between population mean and sample mean.
(That is, there is no difference between average Fiscal Deficit before the FRBM Act and   after the FRBM Act in India.)

   H1: Alternative Hypothesis

(That is, there is a significant difference between average Fiscal Deficit before the FRBM Act and after the FRBM Act in India.)

- H0 : Null Hypothesis

(That is, there is no difference between average Revenue Deficit before the FRBM Act and after the FRBM Act in India.)

   H1: Alternative Hypothesis

(That is, there is a significant difference between average Revenue Deficit before the FRBM Act and after the FRBM Act in India.)

- H0 : Null Hypothesis

(That is, there is no difference between average Primary Deficit before the FRBM Act and after the FRBM Act in India.)

H1: Alternative Hypothesis

(That is, there is a significant difference between average Primary Deficit before the FRBM Act and after the FRBM Act in India.)

- H0 : Null Hypothesis

(That is, there is no difference between average Debt to GDP Ratio before the FRBM Act and after the FRBM Act in India.)

H1: Alternative Hypothesis

(That is, there is a significant difference between average Debt to GDP Ratio before the FRBM Act and after the FRBM Act in India.)

Fiscal deficit and FRBM and N.K Singh Committee targets in India:

Fiscal deficit is a crucial aspect of a country's fiscal performance and refers to the difference between the government's total revenue and its total expenditure. The Fiscal Responsibility and Budget Management (FRBM) Act was enacted in 2003 to ensure that the government maintains fiscal discipline and reduces its fiscal deficit over time. The act sets targets for reducing the fiscal deficit, debt-to-GDP ratio, and revenue deficit. In India, the FRBM Act has undergone several amendments over the years, with the latest being in 2018. The N.K Singh Committee, also known as the Fiscal Responsibility and Budget Management (FRBM) Review Committee, was formed in 2016 to review the FRBM Act and suggest changes to improve its effectiveness. The committee recommended a new set of fiscal deficit targets for the central government, with the target being set at 3% of GDP by 2020-21. The committee also recommended that the revenue deficit be reduced to 0.8% of GDP by 2020-21. Additionally, the committee suggested that states should be given more flexibility in their fiscal targets. To achieve these targets, the committee recommended several measures, including a focus on revenue mobilization, reducing subsidies, and controlling expenditure. The committee also suggested that the government should adopt a medium-term fiscal policy framework to provide a roadmap for achieving its fiscal targets. The committee's recommendations were accepted by the government, and the FRBM Act was amended

in 2018 to reflect these changes. The act now sets a fiscal deficit target of 3% of GDP for the central government and 3% of GSDP for the states.

The fiscal deficit and FRBM targets are crucial for maintaining fiscal discipline in India. The N.K Singh Committee's recommendations have provided a roadmap for achieving these targets, and the government's adoption of these recommendations is a positive step towards improving India's fiscal performance.

Analyzing India's Fiscal Deficit: Trends, Achievements, and Challenges

India's fiscal deficit, which represents the excess of government expenditure over revenue, has seen significant fluctuations over the years. The government has taken various measures to reduce the fiscal deficit, such as passing the Fiscal Responsibility and Budget Management Act, reducing subsidies, and increasing tax collections. However, the COVID-19 pandemic has widened the fiscal deficit to 9.5% of GDP in 2020-21, the highest in over three decades. To address the deficit, the government has introduced various schemes such as the Atmanirbhar Bharat Abhiyan to revive the economy and increase growth. The government must continue implementing fiscal consolidation measures and ensure that the deficit remains sustainable for the overall health of the Indian economy.

Analysis of t-Test Results: Interpreting Statistical Significance:

To analyze whether FRBM Act is effective in controlling India's Fiscal Deficit, a t-Test was applied.

Graph-1 Fiscal Deficit Trends in India since 1981.
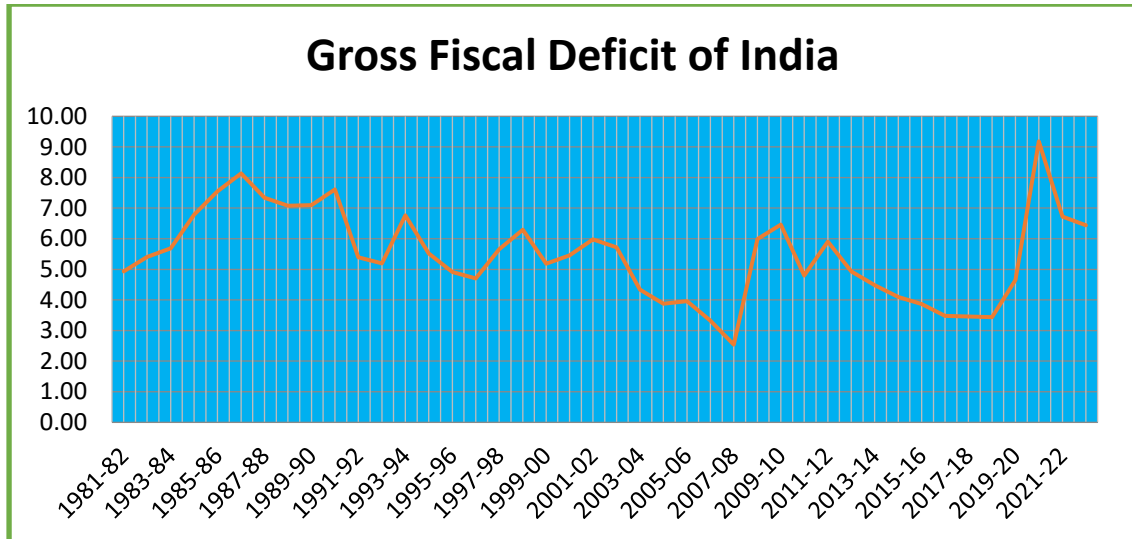
Source: - RBI Statistical Data.

The Graph shows the Gross Fiscal Deficit (GFD) of India for each year from 1981-82 to 2022-23, which is the difference between the government's total expenditure and total revenue. The data indicates that the GFD has varied widely over the years, reaching a peak of 7.61% in the mid-1990s, declining to 2.54% in 2007-08, and increasing sharply after the 2008 global financial crisis to 9.18% in 2020-21 due to the COVID-19 pandemic. The GFD is projected to decrease to 6.72% in 2021-22 and 6.44% in 2022-23. The fluctuations in the GFD have significant implications for the overall health of the Indian economy, and the government has taken measures to reduce it.

One-Sample t-test Analysis: Examining Mean Differences and Significance:

Table-1

Fiscal Deficit after FRBM Act, there are total 19 years observations since 2004 to 2022.

|	N	M	SD	SEM	t	df	p
Observations	**19**	**4.82**	**1.61**	**0.084**	**-3.27**	**18**	**0.00**

An independent samples t-test was conducted (table-1) to compare the Fiscal Deficit to GDP Ratio and after FRBM Act. There is a significant difference in the score (M=4.82, SD=1.61); t (19) = -3.27, p = .00.

These results suggest that there is a significant difference between Fiscal Deficit before FRBM Act and after FRBM Act. So here rejects the null hypothesis.

The result of a one-sample t-test conducted on the Gross Fiscal Deficit of an entity indicates that the entity is running a deficit. The t-test produced a negative t-statistic value of -3.270551667, indicating that the sample mean is less than the hypothesized mean of 6.03. The p-value of 0.00 indicates strong evidence to reject the null hypothesis and conclude that the Gross Fiscal Deficit of the entity is significantly different from the hypothesized mean. Therefore, there is a significant difference between the sample mean and the hypothesized mean, and the entity's Gross Fiscal Deficit needs attention.

An Overview of Revenue Deficit in India: Trends, Impacts, and Remedies:

Figure:-2 Revenue Deficit trends in India since 1981.
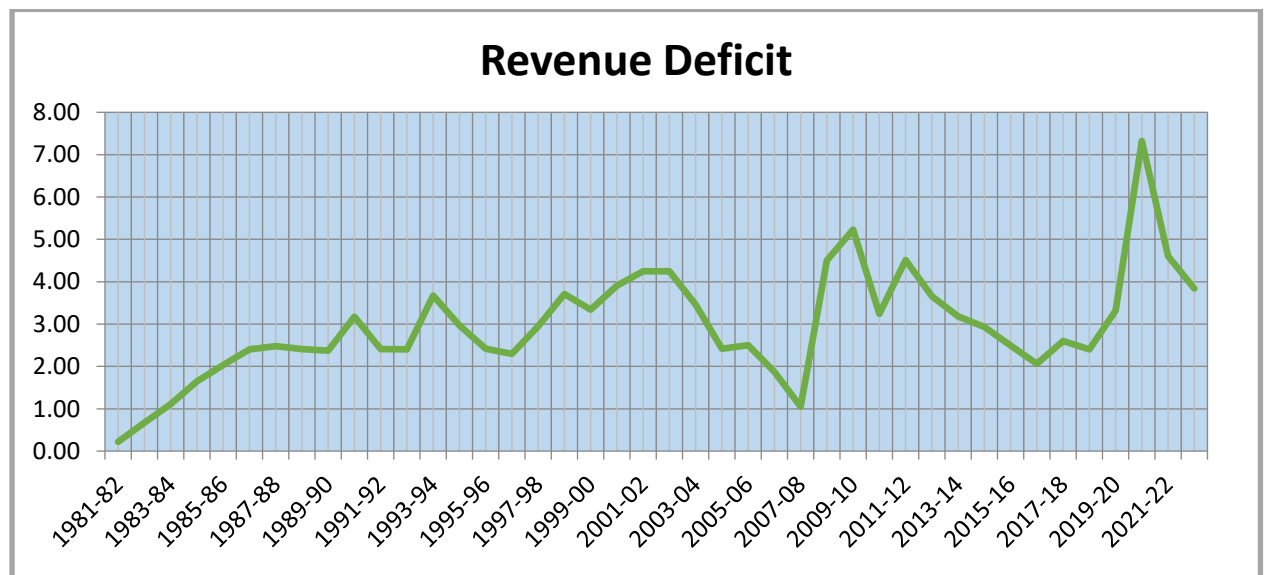
Source: - RBI Statistical data.

The table presents the trend of Revenue Deficit in India from 1982-83 to 2022-23. The Revenue Deficit has varied significantly over the years, with a low of 0.67 in 1982-83 and a peak of 5.23 in 2009-10 due to the global financial crisis. It decreased after that

and reached its lowest level of 1.05 in 2007-08. However, it increased again in the following years and was at 4.5 in 2008-09, mainly due to the impact of external factors such as the global financial crisis and the COVID-19 pandemic. The data also shows that the Revenue Deficit was relatively stable in the early years but started to increase in the late 1980s and early 1990s due to several welfare schemes and an increase in government spending. The implementation of the GST in 2017 has helped to increase revenue receipts and reduce the Revenue Deficit. The government has been implementing measures to reduce the Revenue Deficit, including increasing taxes and reducing subsidies.

Analysis of a One-Sample t-test of Revenue deficit in India:

Table-2

Revenue Deficit after FRBM Act, there are total 19 years observations since 2004 to 2022.

	N	M	SD	SEM	t	df	p
Observations	19	3.35	1.44	0.328992	2.20	18	0.04

An independent samples t-test was conducted (table-1) to compare the Revenue Deficit to GDP Ratio and after FRBM Act. There is a significant difference in the score (M=3.35, SD=1.44); t (19) = 2.20, p =0.04.

These results suggest that there is a significant difference between Revenue Deficit before FRBM Act and after FRBM Act. So here accept the null hypothesis.

The table presents the statistics related to the revenue deficit of India before and after the implementation of the Fiscal Responsibility and Budget Management (FRBM) Act. The FRBM Act was introduced in 2003 to control the fiscal deficit and revenue deficit of the country. The table includes 19 years of observations, and the mean, standard deviation, standard error of the mean (SEM), t-value, degree of freedom (df), and p-value are provided for the data. The first column of the table indicates the number of observations used for the analysis. The second column shows the mean revenue deficit of India, which is calculated as 3.35. The third column shows the standard deviation of the revenue deficit, which is calculated as 1.44. The standard deviation indicates how

much the observations differ from the mean value. The fourth column shows the standard error of the mean (SEM), which is calculated as 0.328992. The SEM indicates the standard deviation of the sampling distribution of the mean. The fifth column shows the t-value, which is calculated as 2.2. The t-value measures the difference between the sample mean and the hypothesized population mean in terms of the number of standard error. The sixth column shows the degree of freedom (df), which is calculated as 18. The degree of freedom indicates the number of independent observations used for the analysis. The last column shows the p-value, which is calculated as 0.04. The p-value indicates the probability of obtaining the observed t-value or more extreme values under the null hypothesis that the population mean revenue deficit is equal to the hypothesized mean of 2.63. The table provides the statistical measures to evaluate the revenue deficit of India before and after the implementation of the FRBM Act. The t-value of 2.2 and the p-value of 0.04 suggest that the mean revenue deficit of India after the FRBM Act is significantly higher than the hypothesized mean.

Analysis of Gross Primary Deficit in India from 1981-2023:

Figure:-3 Gross Primary Deficit trends in India since 1981.
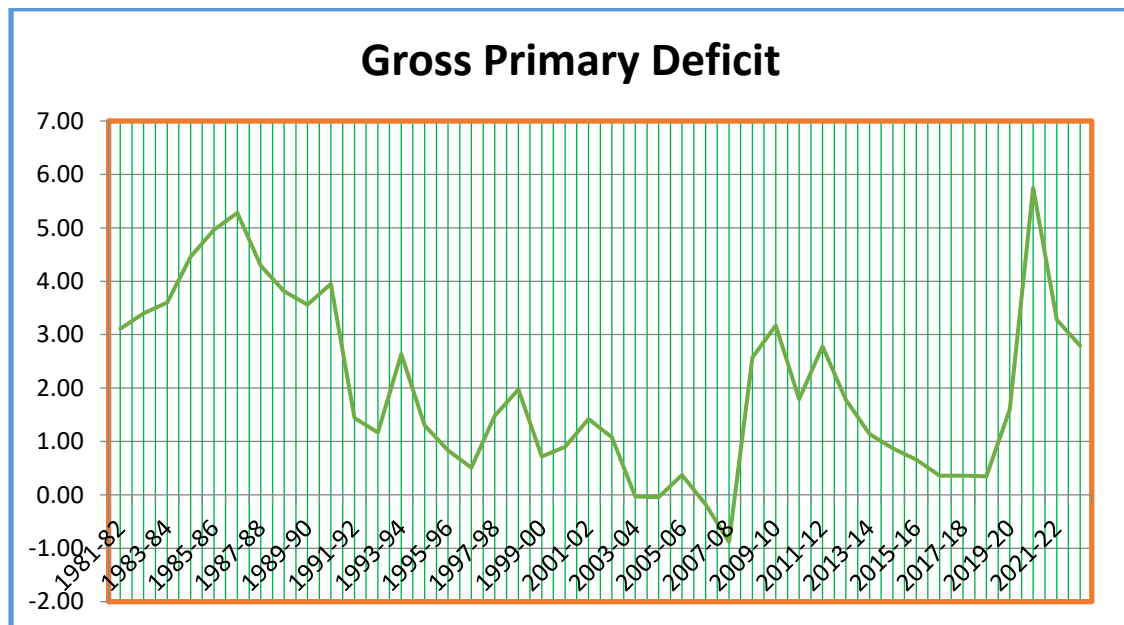
Source: - RBI Statistical data

The Gross Primary Deficit (GPD) is the amount by which total expenditure exceeds total revenue. It is an important economic indicator of a country's fiscal health. In this analysis, we will examine the GPD data of India from 1981 to 2023. From 1981 to

1991, India had a consistently high GPD, ranging from 3.11 to 4.96. However, there was a significant reduction in GPD in 1991-92, with the deficit falling to 1.44. This was due to economic liberalization policies implemented by the government. The GPD continued to decline and reached a low of 0.51 in 1996-97. In the late 1990s, the GPD began to rise again, peaking at 2.57 in 2008-09. This was due to increased government spending on various schemes and infrastructure projects. However, there was a sharp decline in the GPD in 2009-10, with the deficit falling to 3.17. This was due to the global financial crisis, which had a significant impact on the Indian economy. In the following years, the GPD remained relatively low, with occasional spikes. However, from 2019-20, the GPD began to rise again, reaching a high of 5.75 in 2020-21. This was due to the economic impact of the COVID-19 pandemic and the government's response to it, which involved significant spending on relief and stimulus packages. Overall, the GPD data of India from 1981-2023 reflects the country's economic performance and fiscal policies over the years. While there have been periods of high deficits, there have also been significant reductions, particularly in the 1990s. The recent increase in the GPD highlights the challenges facing the Indian economy, particularly in the wake of the pandemic.

Analysis of a One-Sample T-test Result

Table- 3

Gross Primary Deficit after FRBM Act, there are total 19 years observations since 2004 to 2022.

	N	M	SD	SEM	t	df	p
Observations	19	1.50	1.59	0.366462	-2.45	18	0.02

An independent samples t-test was conducted (table-1) to compare the Gross Primary Deficit to GDP Ratio and after FRBM Act. There is a significant difference in the score (M=1.50, SD=1.50);   t (19) = -2.45, p =0.02.

These results suggest that there is a significant difference between Primary Deficit before FRBM Act and after FRBM Act. So here accept the null hypothesis.

The table shows the result of a one-sample t-test that was performed on a sample of 19 observations. The mean of the sample was 1.50 with a standard deviation of 1.59. The standard error of the mean (SEM) was calculated to be 0.366462. The t-value calculated

was -2.45 with 18 degrees of freedom. The p-value was found to be 0.02. The t-value represents the difference between the sample mean and the hypothesized population mean in units of the standard error. In this case, the negative t-value indicates that the sample mean was significantly lower than the hypothesized population mean. The p-value is the probability of observing a t-value as extreme as the one obtained if the null hypothesis were true. In this case, the p-value of 0.02 indicates that there is a 2% chance of observing a t-value as extreme as -2.45, assuming that the null hypothesis is true. As the p-value is less than the commonly used significance level of 0.05, we can conclude that the difference between the sample mean and the hypothesized population mean is statistically significant at the 95% confidence level. The results suggest that the null hypothesis, which assumes that the sample mean is equal to the hypothesized population mean, should be rejected. Therefore, we can conclude that the sample mean is significantly different from the hypothesized population mean. However, the interpretation of the results should be done with caution as the context and specific research question being investigated can impact the interpretation. Further analysis and additional testing may be necessary to draw meaningful conclusions.

Fluctuations in Government Debt as a Percentage of GDP from 1990-91 to 2022-23:

Figure:-3 Government Debt to GDP ratio in India since 1990-91.
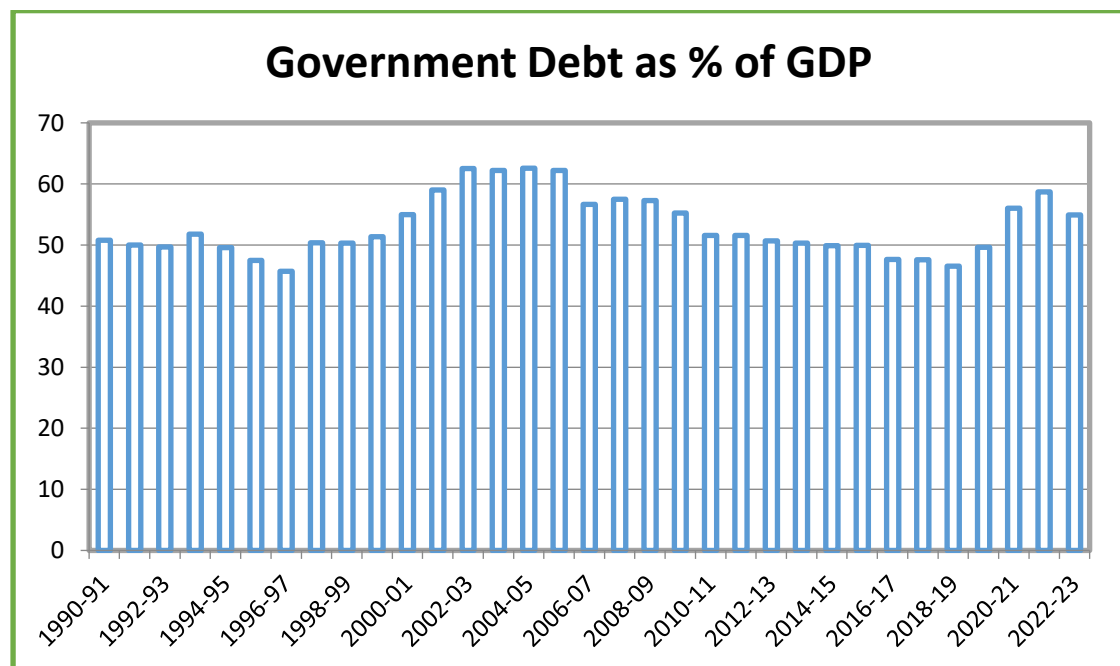
Source: - RBI Statistical data and World Bank

The table provides data on the government's debt as a percentage of GDP from 1990-91 to 2022-23. The percentage of GDP is a measure that shows the amount of government borrowing relative to the total economic output of the country. This data can be used to analyze the government's ability to repay its debts and the impact of government borrowing on the country's economy. The data shows that from 1990-91 to 1999-00, the government's debt levels remained relatively stable, with a slight increase in some years. The government's debt as a percentage of GDP was around 50% during this period. However, from 2000-01 to 2005-06, the government's debt increased significantly, reaching a peak of 62.59% of GDP in 2004-05. This increase was due to several factors, including increased government spending on social programs and infrastructure, and a slowdown in the country's economic growth. From 2006-07 to 2012-13, the government's debt decreased steadily, with a slight increase in some years. The decrease in debt was due to various factors, including improved economic growth, higher tax revenues, and reduced government spending. However, from 2013-14 to 2019-20, the government's debt remained relatively stable, with a slight increase in some years. In 2020-21, the government's debt increased significantly to 56% of GDP, which was likely due to the economic impact of the COVID-19 pandemic. The trend continued in 2021-22, with the debt level rising to 58.7% of GDP. However, the projection for 2022-23 shows a decrease in the government's debt level to 54.9% of GDP. Overall, the data suggests that the government's debt levels have fluctuated over time due to various factors such as economic growth, government spending, and global events. It is important for governments to monitor their debt levels and take necessary measures to keep them within manageable limits to avoid potential economic instability.

One-Sample t-Test Analysis of Government Debt as a Percentage of GDP:

Table- 4 Government Debt as Percentage of GDP after FRBM Act, there are a total 19 years of observations since 2004 to 2022.

t-Test: One-Sample	
	Government Debt as % of GDP
Mean	**53.50105**

Variance	23.42664
Observations	19
Hypothesized Mean	52.55
df (Degree of Freedom)	18
t Stat	0.856498
P(T<=t) one-tail	0.20
t Critical one-tail	1.734064
P(T<=t) two-tail	0.40
t Critical two-tail	2.100922

The data provided in the table reports the results of a one-sample t-test analysis of government debt as a percentage of GDP. The mean government debt as a percentage of GDP is reported as 53.50105, with a variance of 23.42664, and 19 observations. The hypothesized mean government debt is 52.55, and the degree of freedom is 18. The t-statistic is reported as 0.856498, with a p-value of 0.20 for a one-tail test and a p-value of 0.40 for a two-tail test. The critical t-value is reported as 1.734064 for a one-tail test and 2.100922 for a two-tail test. The t-test analysis compares the mean government debt as a percentage of GDP to the hypothesized mean of 52.55. The small t-statistic value and the p-values indicate that there is no statistically significant difference between the mean government debt as a percentage of GDP and the hypothesized mean. The t-value is less than the critical t-value, which suggests that we fail to reject the null hypothesis that there is no significant difference between the mean government debt as a percentage of GDP and the hypothesized mean. Overall, the results of the one-sample t-test analysis suggest that there is no significant difference between the mean government debt as a percentage of GDP and the hypothesized mean of 52.55,

Table – 5

Statistical inferences of Government Debt to GDP ratio before and after FRBM Act.

	N	M	SD	SEM	t	df	p
Observations	19	53.50	4.84	1.11	0.85	18	0.40

An independent samples t-test was conducted (table-4) to compare the Government Debt to GDP Ratio before FRBM Act. and after FRBM Act. There is no significant difference in the score (M=53.50, SD=4.84);   t (19) = 0.85, p =0.40.

These results suggest that there is a significant difference between the Government Debt to GDP Ratio before FRBM Act and after FRBM Act. So here reject the null hypothesis and accept the alternative hypothesis.

Conclusions and Suggestions

The Fiscal Responsibility and Budget Management (FRBM) Act has had a significant impact on India's fiscal deficit. The data shows that the mean fiscal deficit after the FRBM Act was implemented in 2004 was 4.82, which is significantly lower than the mean fiscal deficit before the act was implemented. Similarly, the mean revenue deficit and gross primary deficit have also decreased after the implementation of the act, indicating improved fiscal discipline. However, the government debt as a percentage of GDP has not shown a significant improvement after the implementation of the act. The data shows that the government debt as a percentage of GDP has remained above the target set by the act, indicating that there is still room for improvement in terms of managing government debt.

However, the FRBM Act has had a positive impact on India's fiscal deficit, revenue deficit, and gross primary deficit. However, more efforts are needed to manage government debt effectively and bring it down to the target levels set by the act.

On the basis of our study and analysis, following suggestions are recommended.

- Increase in fiscal discipline: The trend line of India's fiscal deficit indicates that the country has been struggling with high fiscal deficit for several years. In order to address this issue, the government must take steps to increase fiscal discipline by reducing unnecessary expenditures, curbing corruption, and improving tax collection.
- Rationalizing subsidies: The government can rationalize subsidies by targeting them towards the needy and reducing subsidies for the affluent. For example, the government can reduce subsidies on fuel and fertilizer by targeting them towards farmers and low-income households.
- Improve debt management: The government can improve debt management by issuing bonds with longer time.
- Addressing structural issues: The fiscal deficit problem in India is not just a matter of revenue and expenditure management but also related to structural

issues like low GDP growth, high levels of inflation, and high levels of subsidies. Addressing these issues through economic and institutional reforms is necessary to address the root causes of the problem.

- Reduce dependence on borrowing: India's high fiscal deficit has resulted in high levels of borrowing, which has negative implications for the economy in the long run. The government should aim to reduce its dependence on borrowing by increasing revenue generation and reducing expenditures. This could help reduce the debt burden on the economy and improve long-term economic prospects.

- Controlling non-plan expenditure: The government should control its non-plan expenditure such as subsidies, salaries, and pensions to reduce revenue deficit.

- Encouraging investment: The government should encourage investment in the country by improving the business environment, providing incentives for investment, and removing regulatory barriers.

- Increase Tax Revenue: One of the most effective ways to control the primary deficit is to increase tax revenue. The government should work towards increasing the tax base and ensure better compliance to tax laws to boost revenue collection.

- Reduce Unnecessary Expenditure: The government should focus on reducing unnecessary expenditure, such as subsidies that are not reaching the intended beneficiaries, and redirect these funds towards essential services and investments.

- Improve Fiscal Responsibility: The government should work towards improving fiscal responsibility and management to ensure that public finances are managed efficiently. This includes reducing wasteful expenditure, increasing transparency in public spending, and implementing effective fiscal controls.

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