

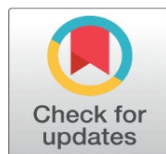
FISCAL MANAGEMENT AND FISCAL SUSTAINABILITY: A COMPARATIVE STUDY OF ODISHA AND WEST BENGAL

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ABSTRACT

The present study examines the comparative fiscal performance of Odisha and West Bengal during 1991–92 to 2022–23 with emphasis on fiscal sustainability, debt management, revenue mobilisation, and fiscal discipline. The study is based on secondary data collected from RBI publications, Finance Accounts, Budget Documents, CAG Reports, and Finance Commission Reports. Trend analysis, ratio analysis, Compound Annual Growth Rate (CAGR), Fiscal Performance Index (FPI), and Independent Sample t-Test are used for the analysis.

The findings reveal that Odisha achieved comparatively better fiscal performance than West Bengal during the study period. Odisha significantly improved its fiscal sustainability through reduction in debt burden, lower interest payment obligations, improved revenue mobilisation, higher capital expenditure, and better fiscal discipline. In contrast, West Bengal continued to experience relatively high debt burden and persistent fiscal deficits. The Fiscal Performance Index also confirms stronger fiscal performance in Odisha compared to West Bengal. Overall, the study concludes that Odisha demonstrated relatively better fiscal management and fiscal sustainability during the post-reform period.

Keywords: Fiscal Performance, Fiscal Sustainability, Debt Management, Odisha, West Bengal



1. INTRODUCTION

Fiscal management has emerged as a critical component of macroeconomic stability and sustainable development in federal economies like India, where state governments play a significant role in public expenditure, infrastructure development, and social welfare provision. In the post-reform period, the fiscal position of Indian states has gained increasing policy attention due to expanding developmental responsibilities, changing patterns of intergovernmental transfers, and the growing need for fiscal sustainability. Sound fiscal management enables states to maintain fiscal discipline, mobilise resources efficiently, manage public debt, and create fiscal space for developmental expenditure,

whereas weak fiscal management often leads to persistent fiscal deficits, rising debt burden, and reduced fiscal autonomy.

The introduction of economic reforms in 1991 and the subsequent implementation of Fiscal Responsibility and Budget Management (FRBM) Acts significantly altered the fiscal framework of Indian states. The emphasis on fiscal consolidation, prudent debt management, expenditure rationalisation, and revenue augmentation encouraged states to improve fiscal discipline and strengthen public financial management. Nevertheless, the fiscal performance of Indian states has remained uneven due to differences in economic structure, governance quality, revenue mobilisation capacity, and expenditure management practices. Consequently, comparative analysis of state finances becomes important for understanding variations in fiscal sustainability and fiscal governance across states.

In this context, Odisha and West Bengal provide an important case for comparative fiscal analysis. Although both states belong to eastern India and share certain socio-economic characteristics, their fiscal trajectories have differed considerably during the post-reform period. Odisha, which historically suffered from weak fiscal capacity and high fiscal stress, experienced significant improvement in fiscal management after the implementation of fiscal reforms and the Odisha FRBM Act, 2005. The state achieved substantial reduction in debt burden and fiscal deficit, improved revenue mobilisation, and strengthened expenditure management. In contrast, West Bengal continued to face persistent fiscal stress characterised by high public debt, rising interest payment obligations, and sustained fiscal deficits despite its relatively larger economic base and historical industrial significance.

The contrasting fiscal experiences of Odisha and West Bengal raise important questions regarding fiscal sustainability, debt management, and public financial management at the sub-national level. While a considerable body of literature has examined fiscal reforms and fiscal sustainability in Indian states, limited studies have undertaken a comprehensive comparative assessment of fiscal performance between Odisha and West Bengal using multiple fiscal indicators. Existing studies have largely focused either on aggregate state finances or on state-specific fiscal experiences, with relatively limited attention to comparative fiscal analysis between these two eastern states.

Against this backdrop, the present study examines the comparative fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23. The study analyses major fiscal indicators relating to debt sustainability, revenue mobilisation, expenditure management, interest burden, and fiscal discipline using trend analysis, ratio analysis, Compound Annual Growth Rate (CAGR), Fiscal Performance Index (FPI), and Independent Sample t-Test. The study seeks to evaluate the relative fiscal position of the two states and provide insights into the nature of fiscal sustainability and public financial management in the post-reform period.

This study contributes to the literature on state finances and fiscal federalism by providing a comprehensive comparative analysis of fiscal performance between Odisha and West Bengal over a long time horizon. The findings of the study are expected to provide useful policy insights for improving fiscal sustainability, strengthening expenditure management, and enhancing fiscal governance at the state level in India.

2. REVIEW OF LITERATURE

Fiscal management and fiscal sustainability have emerged as important areas of research in public finance, particularly after the implementation of economic reforms and Fiscal Responsibility and Budget Management (FRBM) legislations in India. Existing literature has extensively examined issues relating to fiscal deficits, debt sustainability, revenue mobilisation, expenditure management, and the impact of fiscal reforms on state finances.

Several studies have analysed the effectiveness of FRBM legislations in improving fiscal discipline among Indian states. Akin et al. (2017) examined the performance of the FRBM framework in India and observed that fiscal responsibility legislations contributed significantly to reducing fiscal deficits and public debt at both central and state levels. However, the study highlighted weaknesses relating to fiscal monitoring, fiscal risk assessment, and institutional transparency. Similarly, Badaik (2017) analysed the impact of Fiscal Responsibility Legislations on Indian state finances and found that fiscal reforms improved fiscal discipline by reducing fiscal and revenue deficits across states, although the extent of fiscal adjustment varied depending on state-specific revenue and expenditure structures. Sucharita and Sethi (2011), using the Ordinary Least Squares (OLS) method, examined the role of the FRBM Act in restoring fiscal balance in India and found that fiscal consolidation was primarily driven by improved revenue mobilisation and expenditure control rather than the direct impact of the FRBM Act itself.

A number of studies have focused on fiscal sustainability and indebtedness among Indian states. Sen and Dash (2013) examined fiscal imbalances and indebtedness across Indian states during the post-FRBM period and reported significant reduction in revenue deficits, fiscal deficits, and debt burden in most states after the implementation of fiscal responsibility legislations. The study also observed that low-income states achieved greater fiscal adjustment through expenditure compression and improved revenue mobilisation. Darshini and Gayithri (2024) analysed fiscal dependency and resource gaps among major Indian states and found that states such as Odisha improved fiscal performance and reduced fiscal dependency, whereas states like West Bengal, Punjab, and Kerala continued to face high fiscal dependency and debt sustainability concerns. Yoganandham (2024) examined the changing fiscal structure of Indian states during the post-COVID period and reported rising fiscal deficits and debt burden despite improvements in fiscal governance and revenue mobilisation.

Several studies have specifically examined the fiscal performance and fiscal sustainability of Odisha. Mohanty et al. (2016) analysed the fiscal landscape of Odisha during 1980–81 to 2014–15 and observed that the state experienced severe fiscal deterioration during the 1980s and 1990s due to rising deficits, increasing debt burden, and growing committed expenditure. However, the implementation of fiscal reforms and the Odisha FRBM Act, 2005 significantly improved the state's fiscal position through reduction in fiscal deficits and debt burden. Mahapatra et al. (2022) examined public expenditure management in Odisha and found that although fiscal indicators improved after reforms, the sustainability of fiscal discipline depended on efficient expenditure prioritisation and operational efficiency in public expenditure management.

Studies relating to West Bengal largely highlight persistent fiscal stress and weak fiscal performance. Sardar (2023) examined the fiscal performance of West Bengal among Indian states using composite fiscal indicators and found that the state's fiscal position remained weak due to high debt burden, rising fiscal deficits, and low own revenue mobilisation. Das and Chattopadhyay (2018), in the context of Urban Local Bodies in West Bengal, reported that fiscal decentralisation remained weak because of inadequate own-source revenue and heavy dependence on transfers. Dutta and Majumdar (2023) also found that municipal fiscal institutions in West Bengal experienced persistent fiscal stress due to weak revenue autonomy and inadequate revenue mobilisation capacity.

Some studies have analysed fiscal management in broader national and regional contexts. Mukherjee (2019) examined fiscal reforms and public finance management in India and found that VAT implementation and FRBM legislations improved fiscal discipline at the state level. However, the study also noted that external shocks such as the global financial crisis and rising expenditure commitments created fiscal stress among states. Bishnoi (2005), in the context of Haryana, observed that fiscal deterioration was caused by rising expenditure and increasing debt burden, while fiscal reforms and VAT implementation contributed to partial fiscal stabilisation. Sawhney (2018), analysing Punjab, found that fiscal adjustment was achieved mainly through reduction in capital expenditure rather than sustainable revenue mobilisation, thereby affecting long-term developmental expenditure.

Studies have also highlighted the relationship between fiscal discipline and developmental expenditure. Khoja and Khan (2020) examined the impact of FRBM legislations on debt management and social sector expenditure across Indian states and observed that many states maintained fiscal targets by compressing social and capital expenditure. The study argued that balancing fiscal discipline with developmental expenditure is essential for sustainable fiscal management. Similarly, Mahapatra et al. (2022) stressed the importance of efficient public expenditure management for maintaining long-term fiscal sustainability.

The existing literature clearly indicates that fiscal reforms and fiscal responsibility legislations have played an important role in improving fiscal discipline and debt sustainability among Indian states. However, the fiscal experiences of states remain highly uneven due to differences in fiscal capacity, debt burden, revenue mobilisation, and expenditure management practices. While several studies have analysed fiscal sustainability either at the aggregate state level or for individual states, limited research has undertaken a comprehensive comparative analysis of fiscal performance between Odisha and West Bengal using multiple fiscal indicators over a long time period. Therefore, the present study attempts to fill this gap by comparatively analysing the fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23 using indicators relating to debt sustainability, revenue mobilisation, expenditure management, and fiscal discipline.

Despite the extensive literature on fiscal reforms, fiscal sustainability, and public financial management in India, the existing studies reveal important gaps in the comparative analysis of state finances. Most studies have either examined fiscal performance at the aggregate level for Indian states or focused on individual state experiences relating to debt

burden, fiscal deficits, revenue mobilisation, and expenditure management. While Odisha and West Bengal have been discussed separately in the literature, systematic comparative evidence on their fiscal performance remains limited. Existing studies have largely concentrated on specific dimensions of fiscal management such as debt sustainability, fiscal responsibility legislations, or expenditure management, with relatively limited attention to an integrated assessment of fiscal performance using multiple fiscal indicators simultaneously. Furthermore, very few studies have employed a multidimensional analytical framework combining trend analysis, ratio analysis, Compound Annual Growth Rate (CAGR), composite fiscal performance measurement, and statistical testing to examine interstate fiscal performance over a long period. In particular, comparative evidence regarding the relative fiscal sustainability, fiscal discipline, debt management, and developmental expenditure patterns of Odisha and West Bengal during the post-reform and post-FRBM period remains inadequate in the existing literature. Therefore, the present study attempts to address this gap by providing a comprehensive comparative analysis of the fiscal performance of Odisha and West Bengal during 1991–92 to 2022–23 using major fiscal indicators relating to debt sustainability, revenue mobilisation, expenditure management, interest burden, and fiscal discipline.

3. DATA SOURCES AND METHODOLOGY

The present study is based entirely on secondary data collected from various authentic government publications and official statistical sources. The study analyses the comparative fiscal performance of Odisha and West Bengal for the period from 1991–92 to 2022–23. The selected period captures the fiscal behaviour of both states during the post-reform era, including the implementation of Fiscal Responsibility and Budget Management (FRBM) reforms and changing fiscal federal dynamics in India.

The required data relating to Debt Stock to GSDP Ratio, Interest Payment to Revenue Receipts Ratio, Own Tax Revenue to GSDP Ratio, Capital Expenditure to Total Expenditure Ratio, and Fiscal Deficit to GSDP Ratio were collected from various official and authentic government publications. The major sources of data include the Reserve Bank of India (RBI) publications such as State Finances: A Study of Budgets and the Handbook of Statistics on Indian States. In addition, data were obtained from the Finance Accounts and Budget Documents of the Government of Odisha and the Government of West Bengal. The study also utilised information from the Reports of the Comptroller and Auditor General (CAG) of India and various Finance Commission Reports to ensure consistency, reliability, and comprehensiveness of the fiscal data used in the analysis. The study uses annual time-series data for both states covering a period of thirty-two years from 1991–92 to 2022–23. The collected data are systematically arranged and analysed using descriptive and comparative statistical techniques to evaluate the relative fiscal performance of Odisha and West Bengal.

3.1. MODEL SPECIFICATION

The study adopts a descriptive and comparative analytical framework to examine the fiscal performance of Odisha and West Bengal. Since fiscal performance is multidimensional in nature, the study employs multiple fiscal indicators relating to debt sustainability, fiscal discipline, revenue mobilisation, and expenditure management.

Selection of Fiscal Indicators

The following indicators are selected for the analysis:

Table 1

Table 1 Fiscal Indicators		
Fiscal Indicator	Symbol	Nature
Debt Stock to GSDP Ratio	DSGDP	Negative
Interest Payment to Revenue Receipts Ratio	IPRR	Negative
Own Tax Revenue to GSDP Ratio	OTRGSDP	Positive
Capital Expenditure to Total Expenditure Ratio	CETE	Positive
Fiscal Deficit to GSDP Ratio	FDGSDP	Negative

3.2. DESCRIPTIVE AND COMPARATIVE ANALYSIS

The study examines the trends and comparative behaviour of selected fiscal indicators using descriptive statistical techniques such as trend analysis, ratio analysis, and Compound Annual Growth Rate (CAGR) analysis. Trend and ratio analyses are used to evaluate fiscal sustainability, revenue mobilisation, expenditure management, and fiscal discipline in Odisha and West Bengal during the study period.

The CAGR is used to measure the average annual growth rate of major fiscal indicators and is calculated using the following formula:

$$CAGR = \left(\frac{V_f}{V_i} \right)^{\frac{1}{n}} - 1$$

where V_f represents the final value, V_i denotes the initial value, and n indicates the number of years.

3.3. FISCAL PERFORMANCE INDEX (FPI)

To measure the overall fiscal performance of Odisha and West Bengal, the study constructs a composite Fiscal Performance Index (FPI) using the Min-Max Normalisation technique. For positive indicators, the normalisation formula is expressed as:

$$X_{ij} = \frac{X_i - X_{min}}{X_{max} - X_{min}}$$

For negative indicators, reverse normalisation is applied using the following formula:

$$X_{ij} = \frac{X_{max} - X_i}{X_{max} - X_{min}}$$

The Fiscal Performance Index (FPI) is calculated as the arithmetic mean of all normalised indicators using the following formula:

$$FPI = \frac{\sum X_{ij}}{n}$$

$$FPI = \frac{\sum X_{ij}}{n}$$

where X_{ij} represents the normalised value of each indicator and n denotes the total number of indicators included in the analysis. Higher FPI values indicate better fiscal performance and stronger fiscal sustainability.

3.4. STATISTICAL MODEL

To examine whether the differences in fiscal indicators between Odisha and West Bengal are statistically significant, the study employs the Independent Sample t-Test. The null and alternative hypotheses are expressed as follows:

Null Hypothesis

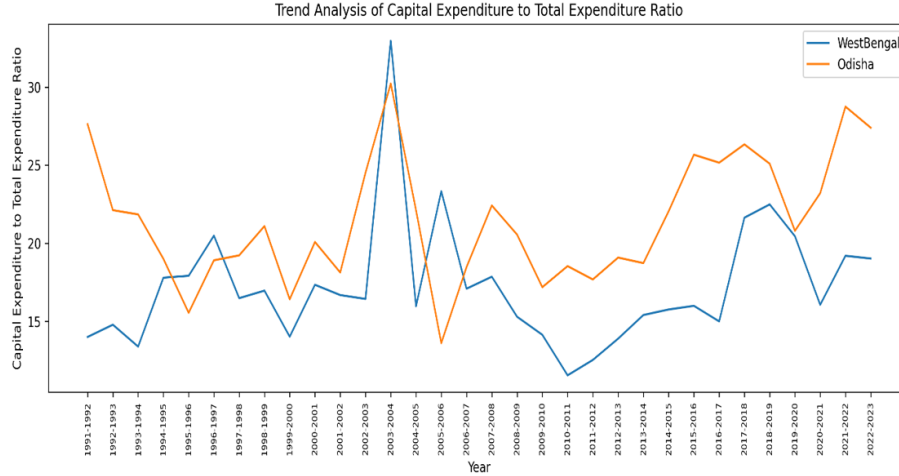
$$H_0: \mu_1 = \mu_2$$

Alternative hypothesis

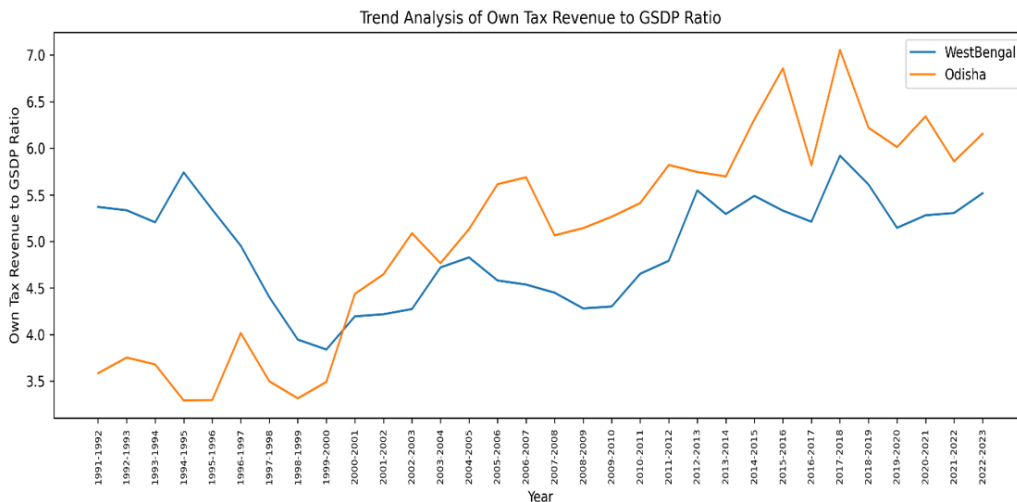
$$H_1: \mu_1 \neq \mu_2$$

where μ_1 represents the mean fiscal indicator of Odisha and μ_2 denotes the mean fiscal indicator of West Bengal. The t-Test is used to determine whether the mean differences in fiscal indicators between the two states are statistically significant during the study period.

4. DISCUSSION AND ANALYSIS:

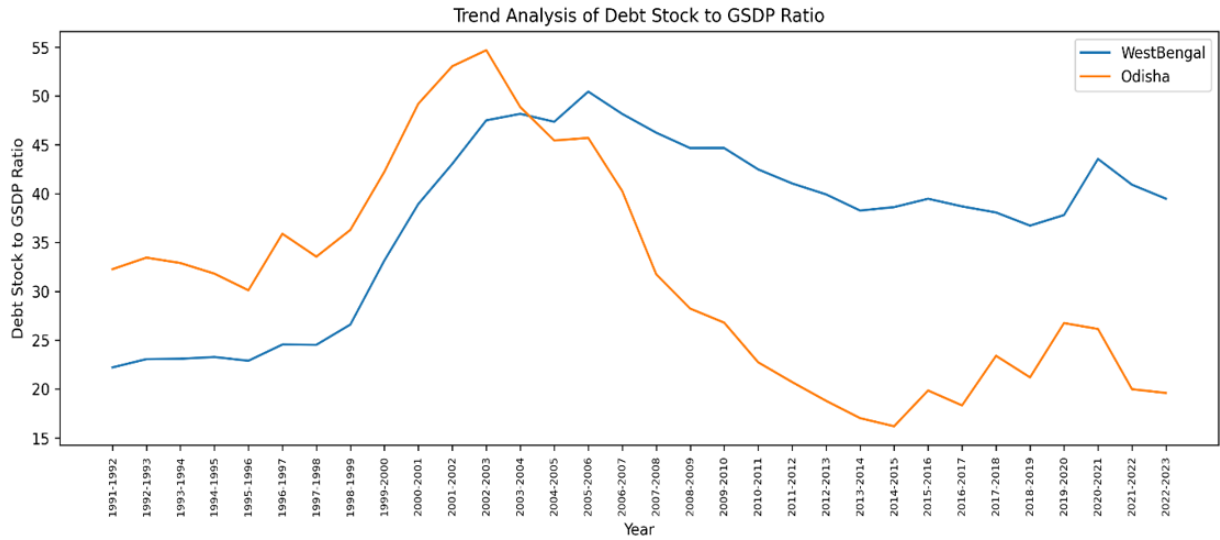


The trend analysis of the Capital Expenditure to Total Expenditure ratio indicates notable differences in expenditure priorities between Odisha and West Bengal during the period 1991–92 to 2022–23. Odisha consistently maintained a relatively higher capital expenditure ratio compared to West Bengal during most years of the study period, reflecting greater emphasis on infrastructure development and productive public investment. Although fluctuations were observed in both states, Odisha demonstrated a significant increase in capital expenditure after the mid-2010s, with the ratio remaining above 25 percent in several recent years. In contrast, West Bengal recorded comparatively lower capital expenditure ratios during most years, except for temporary spikes such as in 2003–04 and the later years of the study period. The comparatively higher and more stable capital expenditure pattern in Odisha suggests stronger developmental orientation and better expenditure management, whereas the lower ratio in West Bengal indicates relatively limited allocation towards capital formation and infrastructure-related activities.

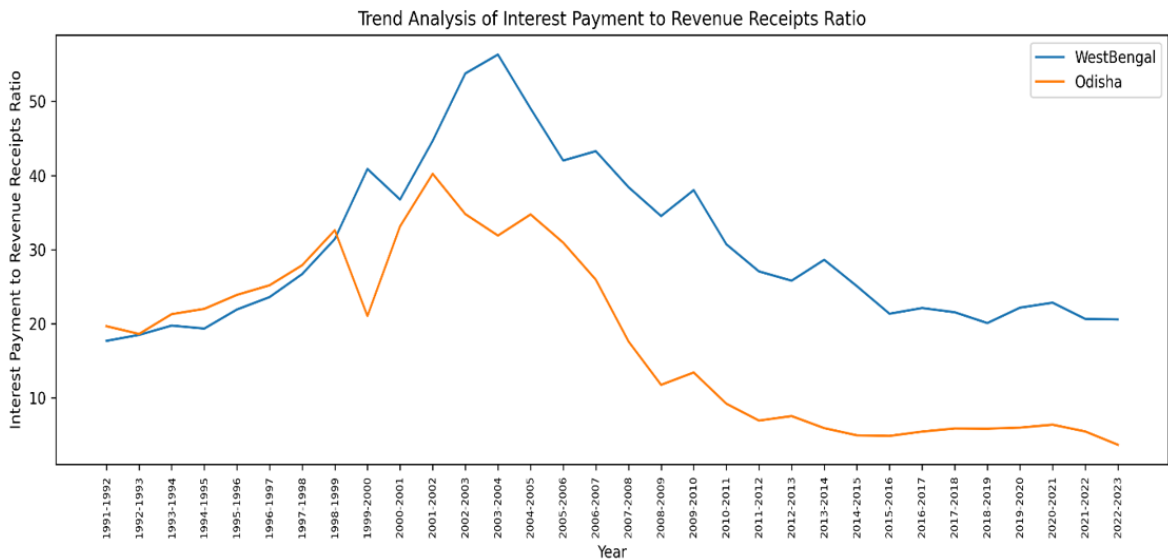


The trend analysis of the Own Tax Revenue to GSDP ratio reveals significant improvement in revenue mobilisation performance in Odisha and relatively stable tax performance in West Bengal during the period 1991–92 to 2022–23. In the initial years, West Bengal recorded higher own tax revenue ratio compared to Odisha. However, Odisha demonstrated steady improvement in tax mobilisation after the early 2000s, and the ratio increased substantially during the post-reform period. The state recorded notable growth particularly after the implementation of fiscal reforms and

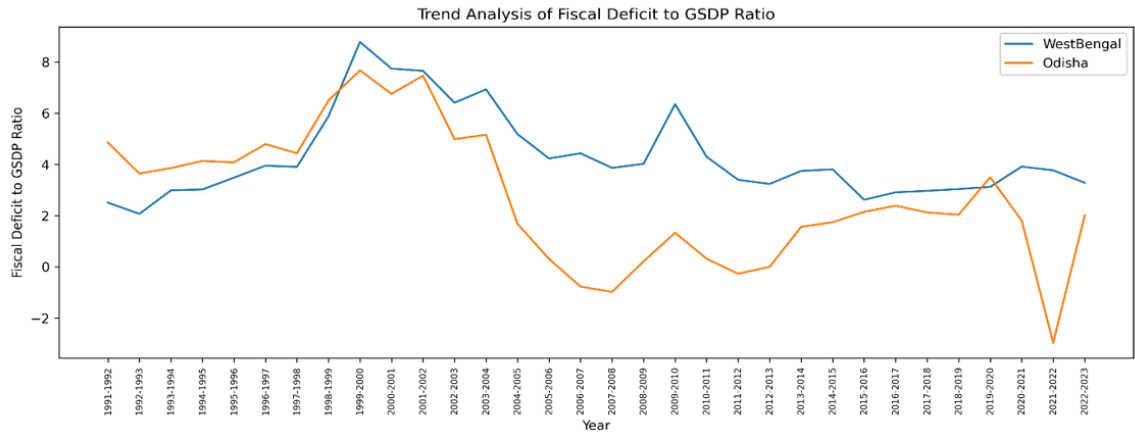
GST-related restructuring, with the ratio exceeding 6 percent in several recent years and reaching above 7 percent in 2018–19. In contrast, West Bengal experienced fluctuations in tax revenue performance, with the ratio largely remaining between 4 and 5.5 percent throughout the study period. Although some improvement was observed in later years, the pace of growth remained comparatively slower than Odisha. The overall trend suggests that Odisha achieved relatively stronger improvement in own tax revenue mobilisation and fiscal capacity compared to West Bengal during the study period.



The trend analysis of the Debt Stock to GDP ratio highlights contrasting fiscal trajectories between Odisha and West Bengal during the period 1991–92 to 2022–23. Odisha experienced a rapid increase in debt burden during the late 1990s and early 2000s, with the ratio reaching its peak at around 55 percent in 2003–04. However, the state achieved remarkable fiscal consolidation thereafter, and the debt ratio declined continuously during the post-FRBM period, reaching below 20 percent in recent years. This sharp decline reflects successful debt restructuring, improved fiscal discipline, and stronger fiscal sustainability in Odisha. On the other hand, West Bengal recorded a persistent rise in debt burden from the 1990s onwards, with the ratio crossing 50 percent in the mid-2000s. Although some reduction was observed after 2010, the debt level remained considerably high throughout the study period and fluctuated around 40 percent in recent years. The overall trend clearly indicates that Odisha achieved substantial improvement in debt management compared to West Bengal, which continued to face relatively high fiscal stress and debt dependency.



The trend analysis of the Interest Payment to Revenue Receipts ratio reveals the changing debt servicing burden in Odisha and West Bengal during the period 1991–92 to 2022–23. Both states experienced increasing interest payment obligations during the late 1990s and early 2000s; however, the magnitude of the burden was considerably higher in West Bengal. The ratio in West Bengal increased sharply and crossed 50 percent during the early 2000s, indicating that a substantial portion of the state’s revenue receipts was utilised for interest payments. Although the ratio gradually declined in later years, it continued to remain relatively high throughout the study period. In contrast, Odisha also witnessed rising interest burden during the initial years, with the ratio reaching around 40 percent in the early 2000s, but the state achieved rapid reduction thereafter. The ratio declined significantly after fiscal reforms and debt restructuring measures and remained below 10 percent during most recent years. The overall trend indicates that Odisha achieved substantial improvement in debt servicing capacity and fiscal sustainability, whereas West Bengal continued to experience relatively higher fiscal pressure arising from interest payment obligations.



The trend analysis of the Fiscal Deficit to GSDP ratio demonstrates significant variation in fiscal discipline between Odisha and West Bengal during the period 1991–92 to 2022–23. Both states experienced rising fiscal deficits during the late 1990s and early 2000s, with the deficit ratio reaching peak levels around 1999–2000 and 2000–01. However, the fiscal trajectory of Odisha changed considerably after the implementation of fiscal reforms and FRBM measures. The state achieved substantial fiscal consolidation during the mid-2000s, and the fiscal deficit ratio declined sharply, even turning negative in certain years, indicating fiscal surplus. Although moderate fluctuations were observed in later years, Odisha maintained relatively lower fiscal deficit throughout most of the post-reform period. In contrast, West Bengal continued to record persistently high fiscal deficits during the study period. While some reduction in the deficit ratio was observed after 2010, the state consistently maintained higher fiscal deficit levels compared to Odisha. The overall trend suggests that Odisha achieved stronger fiscal discipline and more effective fiscal consolidation, whereas West Bengal continued to face comparatively higher fiscal imbalance and borrowing pressure.

Table 2

Table 2 Ratio Analysis of Major Fiscal Indicators in Odisha and West Bengal (1991–92 to 2022–23)				
Fiscal Indicator	Formula	Odisha (Average)	West Bengal (Average)	Better Performing State
Debt Stock to GSDP Ratio	$\text{Debt Stock} / \text{GSDP} \times 100$	31.35	37.42	Odisha
Interest Payment to Revenue Receipts Ratio	$\text{Interest Payments} / \text{Revenue Receipts} \times 100$	17.64	30.16	Odisha
Own Tax Revenue to GSDP Ratio	$\text{Own Tax Revenue} / \text{GSDP} \times 100$	5.06	4.92	Odisha
Capital Expenditure to Total Expenditure Ratio	$\text{Capital Expenditure} / \text{Total Expenditure} \times 100$	21.49	17.25	Odisha
Fiscal Deficit to GSDP Ratio	$\text{Fiscal Deficit} / \text{GSDP} \times 100$	2.7	4.3	Odisha

Sources: Author’s own estimation

The ratio analysis of major fiscal indicators reveals clear differences in the fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23. The analysis shows that Odisha performed relatively better than West Bengal in terms of debt sustainability, fiscal discipline, revenue mobilisation, and expenditure management. Odisha recorded a lower average Debt Stock to GSDP ratio (31.35 percent) compared to West Bengal (37.42 percent), indicating comparatively lower debt burden and stronger fiscal sustainability. Similarly, the average Interest Payment to Revenue Receipts ratio was considerably lower in Odisha (17.64 percent) than in West Bengal (30.16 percent), suggesting reduced debt servicing pressure and greater fiscal space for developmental expenditure in Odisha.

The analysis further indicates that Odisha achieved slightly higher Own Tax Revenue to GSDP ratio (5.06 percent) compared to West Bengal (4.92 percent), reflecting relatively stronger revenue mobilisation capacity. In terms of expenditure management, Odisha maintained significantly higher Capital Expenditure to Total Expenditure ratio (21.49 percent) than West Bengal (17.25 percent), which indicates greater emphasis on infrastructure development and productive public investment. Moreover, Odisha recorded lower average Fiscal Deficit to GSDP ratio (2.70 percent) compared to West Bengal (4.30 percent), reflecting stronger fiscal discipline and more effective fiscal consolidation measures.

Overall, the ratio analysis suggests that Odisha demonstrated comparatively better fiscal management and fiscal sustainability than West Bengal during the study period due to lower debt burden, lower interest payment obligations, higher developmental expenditure, and improved fiscal discipline.

Table 3

Table 3 CAGR Analysis of Major Fiscal Indicators in Odisha and West Bengal (1991–92 to 2022–23)					
Fiscal Indicator	State	Initial Value (1991–92)	Final Value (2022–23)	CAGR (%)	Interpretation
Debt-GSDP Ratio	Odisha	32.27	19.6	-1.57	Declining debt burden
	West Bengal	22.21	39.48	1.87	Increasing debt burden
Interest Payment Ratio	Odisha	19.66	3.66	-5.2	Sharp decline in interest burden
	West Bengal	17.68	20.57	0.49	Slight increase in interest burden
Own Tax Revenue Ratio	Odisha	3.58	6.16	1.75	Strong improvement in tax mobilisation
	West Bengal	5.37	5.52	0.09	Marginal improvement
Capital Expenditure Ratio	Odisha	27.62	27.4	-0.03	Relatively stable capital expenditure
	West Bengal	14	19.02	0.99	Moderate improvement
Fiscal Deficit Ratio	Odisha	4.86	2.01	-2.82	Improvement in fiscal discipline
	West Bengal	2.51	3.28	0.87	Increasing fiscal imbalance

Sources: Author's own estimation

The CAGR analysis of major fiscal indicators highlights substantial differences in the long-term fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23. The analysis reveals that Odisha achieved significant improvement in fiscal sustainability and fiscal discipline over the study period. The Debt-GSDP ratio of Odisha recorded a negative CAGR of -1.57 percent, indicating continuous reduction in debt burden, whereas West Bengal recorded a positive CAGR of 1.87 percent, reflecting increasing dependence on public borrowing and persistent fiscal stress. Similarly, Odisha achieved a sharp decline in Interest Payment to Revenue Receipts ratio with a CAGR of -5.20 percent, while West Bengal recorded a marginal increase of 0.49 percent, indicating continued debt servicing pressure in the state.

The analysis further shows that Odisha demonstrated stronger growth in own tax revenue mobilisation compared to West Bengal. Odisha recorded a CAGR of 1.75 percent in Own Tax Revenue to GSDP ratio, whereas West Bengal recorded only 0.09 percent, suggesting comparatively slower improvement in fiscal capacity and tax mobilisation. In

terms of capital expenditure, Odisha maintained relatively stable capital expenditure ratio during the study period, while West Bengal recorded moderate improvement with a CAGR of 0.99 percent. However, Odisha continued to maintain higher capital expenditure ratio in absolute terms throughout most years of the study period.

The Fiscal Deficit to GSDP ratio analysis also indicates stronger fiscal discipline in Odisha. The state recorded a negative CAGR of -2.82 percent, reflecting substantial fiscal consolidation and reduction in fiscal imbalance. In contrast, West Bengal recorded a positive CAGR of 0.87 percent, indicating increasing fiscal pressure during the study period. Overall, the CAGR analysis suggests that Odisha achieved comparatively better fiscal sustainability, stronger fiscal discipline, and improved fiscal management than West Bengal during 1991–92 to 2022–23.

Table 4

Table 4 Fiscal Performance Index (FPI) of Odisha and West Bengal (1991–92 to 2022–23)				
Fiscal Indicator	Nature of Indicator	Odisha (Normalised Score)	West Bengal (Normalised Score)	Better Performing State
Debt Stock to GSDP Ratio	Negative	0.606	0.448	Odisha
Interest Payment to Revenue Receipts Ratio	Negative	0.735	0.497	Odisha
Own Tax Revenue to GSDP Ratio	Positive	0.471	0.434	Odisha
Capital Expenditure to Total Expenditure Ratio	Positive	0.464	0.266	Odisha
Fiscal Deficit to GSDP Ratio	Negative	0.517	0.382	Odisha
Overall Fiscal Performance Index (FPI)	—	0.559	0.405	Odisha

Sources: Author's own estimation

The Fiscal Performance Index (FPI) analysis provides a comprehensive assessment of the overall fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23. The normalised scores of individual fiscal indicators reveal that Odisha performed better than West Bengal across all major dimensions of fiscal management, including debt sustainability, fiscal discipline, revenue mobilisation, and expenditure management. Odisha recorded higher normalised scores in Debt Stock to GSDP ratio (0.606), Interest Payment to Revenue Receipts ratio (0.735), Own Tax Revenue to GSDP ratio (0.471), Capital Expenditure to Total Expenditure ratio (0.464), and Fiscal Deficit to GSDP ratio (0.517) compared to West Bengal.

The comparatively higher score of Odisha in debt and interest burden indicators indicates stronger debt management and lower fiscal stress during the study period. Similarly, the higher score in capital expenditure ratio reflects greater emphasis on developmental and infrastructure-oriented expenditure. Although the difference in own tax revenue performance between the two states was relatively smaller, Odisha still maintained slightly better revenue mobilisation capacity than West Bengal.

The overall Fiscal Performance Index further confirms the comparatively stronger fiscal performance of Odisha. Odisha recorded a higher composite FPI score of 0.559, whereas West Bengal recorded 0.405. The higher index value of Odisha reflects better fiscal sustainability, improved fiscal discipline, effective expenditure management, and stronger public financial management practices. In contrast, the lower FPI score of West Bengal indicates persistent fiscal pressure arising from high debt burden, substantial interest payment obligations, and relatively weaker fiscal consolidation. Overall, the Fiscal Performance Index analysis suggests that Odisha achieved comparatively better fiscal health and fiscal sustainability than West Bengal during the study period.

Table 5

Table 5 t-Test Analysis of Fiscal Indicators in Odisha and West Bengal (1991–92 to 2022–23)						
Fiscal Indicator	Mean Odisha	Mean West Bengal	t-Statistic	p-Value	Statistical Significance	Better Performing State
Debt-GSDP Ratio	31.35	37.42	2.403	0.0194	Significant	Odisha
Interest Payment Ratio	17.64	30.16	4.452	0	Significant	Odisha

Own Tax Revenue Ratio	5.06	4.92	-0.628	0.533	Not Significant	Odisha
Capital Expenditure Ratio	21.49	17.25	-4.22	0.0001	Significant	Odisha
Fiscal Deficit Ratio	2.7	4.3	2.919	0.0051	Significant	Odisha

Sources: Author's own estimation

The Independent Sample t-Test analysis was conducted to examine whether the differences in fiscal indicators between Odisha and West Bengal were statistically significant during the period 1991–92 to 2022–23. The results reveal statistically significant differences between the two states for most of the selected fiscal indicators. The Debt-GSDP ratio showed a significant difference with a p-value of 0.0194, indicating that Odisha maintained significantly lower debt burden compared to West Bengal. Similarly, the Interest Payment to Revenue Receipts ratio recorded a highly significant difference with a p-value of 0.0000, reflecting substantially lower debt servicing burden and better fiscal sustainability in Odisha.

The Capital Expenditure to Total Expenditure ratio also showed statistically significant difference between the two states, with Odisha recording higher developmental expenditure compared to West Bengal. Likewise, the Fiscal Deficit to GSDP ratio exhibited significant difference with a p-value of 0.0051, confirming stronger fiscal discipline and fiscal consolidation in Odisha during the study period.

However, the Own Tax Revenue to GSDP ratio did not show statistically significant difference between the two states, as the p-value (0.5330) was greater than the conventional significance level of 0.05. This suggests that although Odisha recorded slightly higher average tax revenue mobilisation, the difference between the two states was not statistically strong.

Overall, the t-Test analysis confirms that Odisha demonstrated comparatively better fiscal performance than West Bengal in terms of debt management, interest burden reduction, developmental expenditure, and fiscal discipline during the study period

5. SUMMARY OF FINDINGS

The study analyzed the comparative fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23 using major fiscal indicators relating to debt sustainability, revenue mobilisation, expenditure management, and fiscal discipline. The analysis was carried out using trend analysis, ratio analysis, Compound Annual Growth Rate (CAGR), Fiscal Performance Index (FPI), and Independent Sample t-Test.

The findings of the study revealed significant differences in the fiscal performance of the two states. Odisha demonstrated substantial improvement in fiscal management after the implementation of fiscal reforms and FRBM measures. The state successfully reduced its debt burden and interest payment obligations, improved own tax revenue mobilisation, maintained relatively lower fiscal deficit, and allocated higher expenditure towards capital formation and developmental activities.

In contrast, West Bengal continued to experience relatively high debt burden, substantial interest payment obligations, and persistent fiscal deficits during most years of the study period. Although some improvement in fiscal indicators was observed in recent years, the pace of fiscal consolidation remained comparatively slower than Odisha.

The ratio analysis showed that Odisha recorded lower average debt burden, lower interest payment burden, lower fiscal deficit, and higher capital expenditure compared to West Bengal. Similarly, the CAGR analysis indicated improvement in debt sustainability and fiscal discipline in Odisha, whereas West Bengal continued to experience increasing fiscal pressure.

The Fiscal Performance Index analysis further confirmed that Odisha achieved comparatively stronger fiscal performance than West Bengal. Odisha recorded a higher Fiscal Performance Index score (0.559) compared to West Bengal (0.405), indicating better fiscal sustainability and public financial management.

The Independent Sample t-Test results also revealed statistically significant differences between the two states in terms of debt burden, interest payment burden, capital expenditure, and fiscal deficit management.

Overall, the study found that Odisha demonstrated comparatively better fiscal performance and stronger fiscal sustainability than West Bengal during the study period due to improved fiscal discipline, effective debt management, and greater emphasis on developmental expenditure.

6. CONCLUSION

The present study examined the comparative fiscal performance of Odisha and West Bengal during the period 1991–92 to 2022–23 using major fiscal indicators relating to debt sustainability, revenue mobilisation, expenditure management, and fiscal discipline. The study employed trend analysis, ratio analysis, CAGR, Fiscal Performance Index (FPI), and Independent Sample t-Test to evaluate the fiscal position of the two states.

The analysis revealed that Odisha achieved comparatively stronger fiscal performance than West Bengal during the study period. Odisha significantly improved its fiscal management after the implementation of fiscal reforms and FRBM measures by reducing debt burden, lowering interest payment obligations, improving own tax revenue mobilisation, maintaining lower fiscal deficit, and increasing capital expenditure.

In contrast, West Bengal continued to experience relatively high debt burden, substantial interest payment obligations, and persistent fiscal deficits during most years of the study period. Although some improvement was observed in recent years, the pace of fiscal consolidation remained comparatively slower.

The Fiscal Performance Index and t-Test results further confirmed the comparatively better fiscal sustainability and fiscal discipline of Odisha. Overall, the study concludes that prudent fiscal reforms, effective debt management, and improved expenditure management played an important role in strengthening the fiscal performance of Odisha compared to West Bengal.

CONFLICT OF INTERESTS

None.

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