International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:04, Issue:12 "December 2019"

Impact of FRBM Act on Fiscal Balance in India

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ABSTRACT

The paper examines the impact of the FRBM Act on fiscal balance in India. The FRBM Act aimed to eliminate the revenue deficit and reduce the fiscal deficit to sustainable levels. It mandated the central government to reduce its revenue deficit to zero by 2008-09 and limit the fiscal deficit to 3% of GDP. These targets necessitated significant changes in the government's fiscal policy, including curbing unproductive expenditures and enhancing revenue mobilization. The OLS Method has been used for examining the impact of FRBM Act on fiscal health of government. The OLS empirical results indicate that the FRBM Act significantly affects the level of the fiscal deficit. The GDP growth rate negatively impacts the fiscal deficit (at the 5 percent level of significance), indicating that as the GDP growth rate increases, the fiscal deficit to GDP ratio decreases and vice-versa. Population growth positively affects the fiscal deficit. The negative coefficient for the FRBM Act indicates that its implementation is linked to a reduction in the fiscal deficit- GDP ratio. This relationship is statistically significant, indicating the impact of the FRBM Act on fiscal deficits. After the implementation of the FRBM Act, the fiscal health has improved due to reduction in both fiscal and the revenue deficit and the implementation of fiscal targets of the Act, brought about a shift towards more prudent fiscal management, compelling the government to prioritize its spending and allocate resources more efficiently.

Keywords: Revenue, Expenditure, FRBM Act, Fiscal Deficit,

Introduction

In India, statutory instruments are primarily enacted under Articles 292 and 293 of the Constitution to establish limits on borrowing or extending guarantees. Another significant issue pertains to the authority responsible for monitoring and enforcing these rules, as well as ensuring transparency. In principle, the Government of India is accountable to Parliament; however, the Comptroller and Auditor General, whose functions are defined under Article 148 of the Constitution, exercises the actual monitoring authority on behalf of Parliament. The Ministry of Finance reports any departure from these rules to Parliament and suggests corrective measures.

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The central government introduced the Fiscal Responsibility and Budget Management (FRBM) Act Bill in December 2000 to promote fiscal discipline and balanced budgeting through effective fiscal management. The Act was passed on August 26, 2003, and came into force on July 5, 2004. The FRBM Act outlines principles of fiscal responsibility related to deficit, borrowing, debt and discusses the selection, scope, and targets of fiscal indicators. Among these principles, various deficit indicators, such as Revenue Deficit and Gross Fiscal Deficit, have been identified and targeted. The FRBM Act aimed to eliminate the revenue deficit by 2008-09 and reduce the fiscal deficit to 3 percent of GDP by the same year. To meet these targets, the central government was required to decrease the revenue deficit by 0.5 percent of GDP and the fiscal deficit by 0.3 percent or more of GDP at the end of each financial year, starting from the financial year 2004-05. The FRBM aimed to address the country's mounting fiscal deficits and ensure long-term fiscal stability. The Act aimed to institutionalize fiscal discipline, improve macroeconomic management, and provide greater transparency in fiscal operations.

The FRBM Act also introduced measures to improve transparency and accountability in fiscal operations. The Act required the government to present an annual Medium-Term Fiscal Policy Statement, a Fiscal Policy Strategy Statement, and a Macro-Economic Framework Statement along with the budget. These documents provided a comprehensive overview of the government’s fiscal policy, medium-term fiscal objectives, and macroeconomic projections, fostering a greater understanding of fiscal issues among policymakers and the public. The increased transparency helps in building investors’ confidence and stable economic conditions.

However, the path to toward the FRBM targets was not without challenges. The global financial crisis of 2008-09 and subsequent economic downturns necessitated deviations from the fiscal targets, as the government prioritized stimulating economic growth over strict adherence to fiscal consolidation. These deviations underscored the need for a more flexible framework that could accommodate economic shocks while maintaining fiscal discipline. Consequently, the FRBM Act was amended in 2012 and later in 2018 to introduce escape clauses that allow temporary deviations from fiscal targets in exceptional circumstances, such as national security or severe economic downturns.

Analysis and Discussion

Following the central government's initiative, most of the states enacted their own fiscal responsibility legislation between 2005 and 2008. This legislation mandates that states cap their annual fiscal deficit at 3 percent of their Gross State Domestic Product (GSDP) and eliminate revenue deficits. The states undertook significant efforts to reduce both revenue and fiscal deficits. For instance, the low-income states such as Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, and Odisha made significant progress in reducing their revenue deficits. This raises

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the question of whether these reductions were achieved through front-loading (increasing revenue) or back-loading (cutting expenditures). It would be interesting to explore whether states relied more on their own revenue sources (own tax and non-tax revenue) or on central transfers (states' share in central taxes and grants-in-aid from the center) for revenue mobilization. On average, all states except Kerala, Punjab, Rajasthan, Telangana, and West Bengal met the FRBM target for fiscal deficit.

Table 1 Expenditure Management in Pre-FRBM and Post-FRBM (2001-2016)

State	Average Revenue Expenditure as a percentage of GSDP			Average Capital Expenditure as a percentage of GSDP		
	Pre-FRBM	Post-FRBM	%Change	Pre-FRBM	Post-FRBM	%Change
Andhra Pradesh	21.97	14.87	-32.31	3.17	2.53	-20.2
Bihar	18.93	20.26	6.99	1.8	4.76	165.7
Chhattisgarh	15.26	15.87	3.99	2.23	3.01	35.5
Goa	19.34	15.05	-22.23	3.04	3.21	6.3
Gujarat	14.44	10.38	-28.13	1.56	2.48	59.5
Haryana	12.32	11.36	-7.80	1.05	1.71	63.1
Jharkhand	12.38	15.03	21.39	2.2	2.92	32.0
Karnataka	15.44	14.44	-6.53	1.76	3.03	715
Kerala	14.76	14.53	-1.60	0.72	0.96	36.4
Madhya Pradesh	16.18	16.78	3.59	2.79	3.47	24.3
Maharashtra	12.41	10.58	-14.71	1.47	1.72	15.7
Odisha	17.59	15.77	-10.42	1.61	2.57	60.5
Punjab	16.96	14.79	-12.71	0.88	1.10	23.8
Rajasthan	16.16	14.71	-9.03	2.34	2.56	10.3
TamilNadu	14.19	12.87	-9.31	1.07	2.01	94.4
Uttar Pradesh	15.56	17.84	14.69	1.78	4.06	128.8
West Bengal	13.88	13.38	-3.63	0.76	0.92	17.4
All General Category States	15.74	14.58	-7.41	1.82	2.53	**39.2**

Source: Computed based on respective State's Finance Accounts data.

Table 1 highlights the changes in average revenue and capital expenditures as a percentage of GSDP for selected major states before and after the enactment of the FRBM Act. The majority of states reduced their revenue expenditures post-FRBM, with notable decreases in Andhra Pradesh (-32.31%), Gujarat (-28.13%), and Goa (-22.23%). In contrast, low and lower middle-income states like Bihar (6.99%), Chhattisgarh (3.99%), and Madhya Pradesh (3.59%) experienced marginal increase in revenue expenditure.

Fig. 1 Annual growth rate of revenue, capital and total expenditure of the states

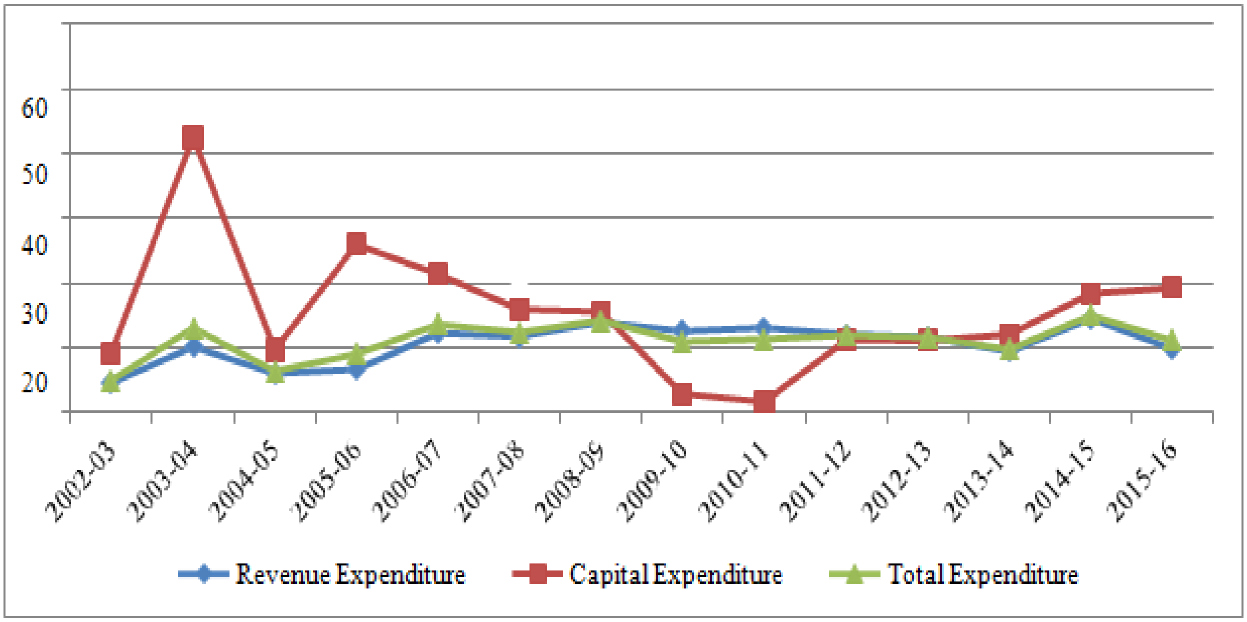
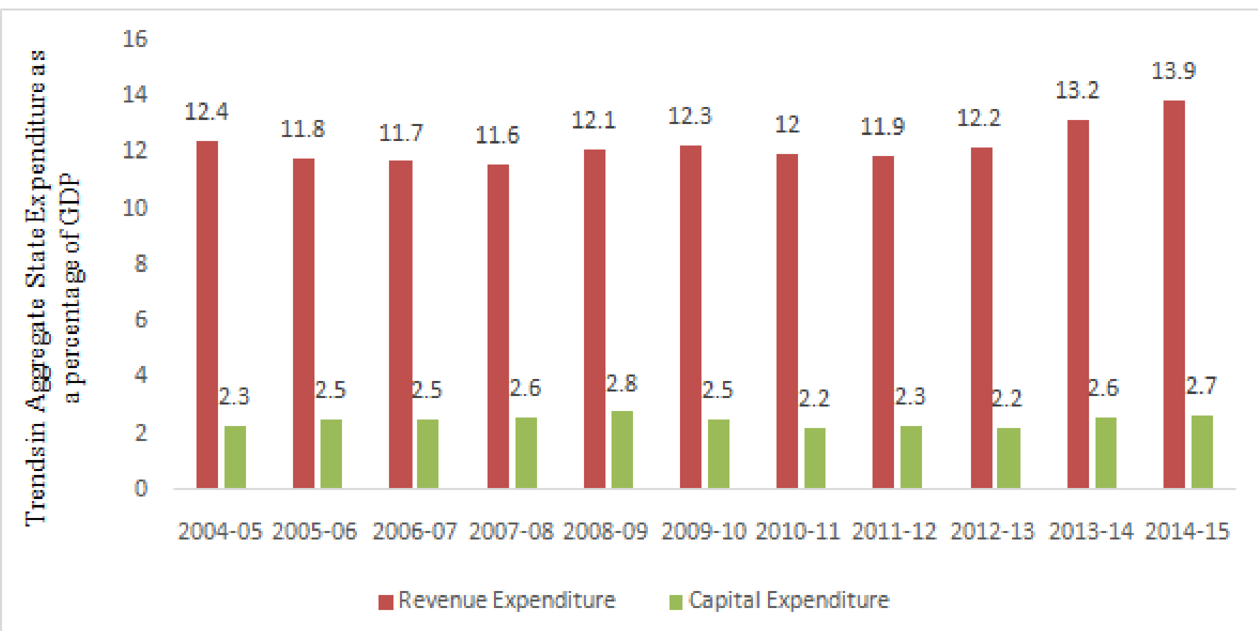


Fig. 2 Trends in aggregate state expenditure as a percentage of GDP



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Capital expenditure, which includes infrastructure and development projects, shows an upward trend post-FRBM in most of the states, reflecting a shift towards more productive and growth-oriented spending. Bihar, in particular, stands out with a dramatic increase of 165.7%, suggesting substantial investment in infrastructure and development projects. Uttar Pradesh and Tamil Nadu also show significant increases of 128.8% and 94.4% respectively. Conversely, some states like Andhra Pradesh and Maharashtra show a decline or modest increases in capital expenditure post-FRBM. Andhra Pradesh's capital expenditure declined by 20.2%, which might be indicative of fiscal consolidation efforts or re-prioritization of expenditures. Maharashtra's marginal increase of 15.7% suggests a more conservative approach to capital investments.

Table 2 Fiscal Management during Pre-FRBM and Post-FRBM (2001-2016)

State	Average Revenue Deficit as a percentage of GSDP			Average Fiscal Deficit as a Percentage of GSDP		
	Pre-FRBM	Post-FRBM	%Change	Pre-FRBM	Post-FRBM	%Change
Andhra Pradesh	2.33	0.33	-86.2	5.91	2.93	-50.3
Bihar	0.60	-2.57	-535.0	4.20	2.45	-41.7
Chhattisgarh	0.81	-1.80	-317.9	3.48	1.30	-62.4
Goa	1.43	-0.36	-124.7	4.46	2.84	-36.3
Gujarat	3.16	0.07	-98.1	4.62	2.53	-45.4
Haryana	0.78	0.68	-13.3	2.71	2.20	-18.6
Jharkhand	0.13	-0.88	-815.0	3.89	2.70	-30.7
Karnataka	2.76	-0.49	-118.1	4.85	2.68	-44.9
Kerala	3.72	2.39	-35.5	4.62	3.65	-19.9
Madhya Pradesh	1.81	-1.99	-208.3	5.23	2.41	-54.3
Maharashtra	2.67	0.21	-92.5	4.34	2.05	-53.4
Odisha	2.86	-2.04	-171.9	5.06	0.53	-89.5
Punjab	4.67	2.23	-52.2	5.80	3.31	-42.4
Rajasthan	3.10	0.10	-96.3	5.72	3.14	-45.6
TamilNadu	2.23	0.06	-97.8	3.41	2.27	-34.2
Uttar Pradesh	2.71	-0.03	-101.1	4.66	3.77	-18.7
West Bengal	4.28	2.44	-43.2	5.39	3.33	-37.8
All General Category States	2.24	-0.09	-104.0	4.64	2.61	-43.8

Source: Computed based on respective State's Finance Accounts data.

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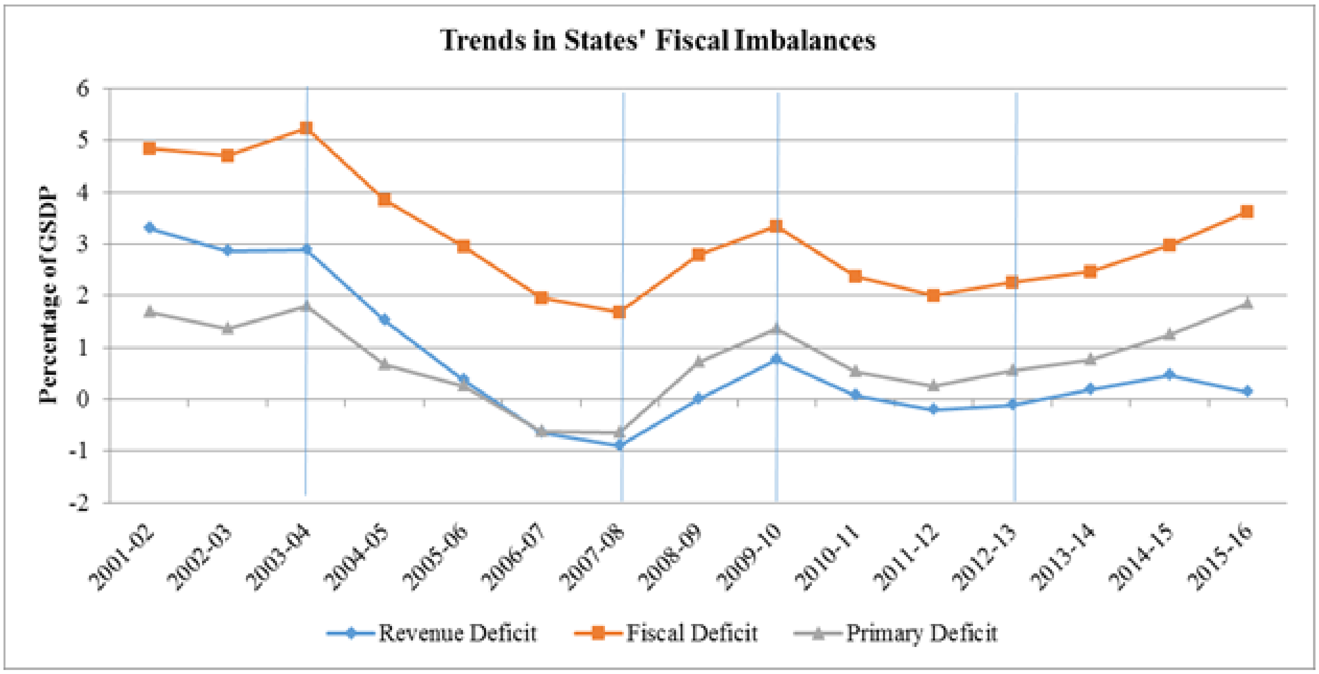
It is discernible from the above information that while many states reduced revenue expenditure to control deficits, they simultaneously increased capital expenditure to promote development and infrastructure growth, suggesting a strategic shift rather than across-the-board spending cuts. Revenue expenditure, primarily consisting of recurrent costs such as salaries, subsidies, and interest payments, shows varied trends across states. Most states exhibit a decline (fig. 2) in average revenue expenditure as a percentage of GSDP post-FRBM. For instance, Andhra Pradesh shows a significant decline of 32.31%, indicating improved fiscal management and possibly reduced non-productive spending. Jharkhand's notable increase of 21.39% suggests a focus on development needs post its formation in 2000.

Fig. 3 Trends in the states' fiscal imbalance for general category states



The table 2 provides an analysis of fiscal management across Indian states during the periods before and after the implementation of Act. The revenue deficit represents the gap between a state's revenue expenditure and its revenue receipts. A negative revenue deficit, or surplus, indicates that a state's revenue receipts exceed its revenue expenditures. The table 2 indicates that most states experienced a significant reduction in their revenue deficits during post FRBM Act. Notably, some states even achieved revenue surpluses during this period.For example, Andhra Pradesh's revenue deficit decreased dramatically from 2.33% to 0.33% of GSDP, a reduction of 86.2%. Similarly, Gujarat and Tamil Nadu almost eliminated their revenue deficits, reducing them by 98.1% and 97.8% respectively. Bihar and Chhattisgarh transitioned from

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having revenue deficits to surpluses, indicating an improvement in their fiscal health and revenue management.

Table 3: Revenue Expenditure on General and Social Services in Pre-FRBM and Post-FRBM Act Periods (2001-2016)

State	Average Revenue Expenditure on General Services as a percentage of GSDP			Average Revenue Expenditure on Social Services as a percentage of GSDP		
	Pre-FRBM	Post-FRBM	%Change	Pre-FRBM	Post-FRBM	%Change
Andhra Pradesh	8.78	4.80	-45.3	7.37	5.91	-19.8
Bihar	10.12	7.55	-25.4	6.35	8.42	32.5
Chhattisgarh	5.20	4.11	-21.1	5.54	6.62	19.5
Goa	7.94	4.66	-41.4	5.62	5.45	-3.0
Gujarat	5.32	3.88	-27.2	4.67	4.05	-13.5
Haryana	5.21	3.62	-30.6	3.68	4.07	10.5
Jharkhand	5.42	5.75	6.1	4.50	5.67	25.8
Karnataka	5.16	4.47	-13.3	5.34	5.25	-1.6
Kerala	6.88	6.61	-3.9	5.10	4.88	-4.2
Madhya Pradesl	6.02	5.35	-11.1	5.17	6.22	20.4
Maharashtra	5.67	3.88	-31.5	4.53	4.43	-2.2
Odisha	8.69	5.55	-36.2	5.89	6.14	4.2
Punjab	10.25	8.03	-21.6	3.91	3.52	-9.8
Rajasthan	7.21	5.21	-27.7	6.18	5.79	-6.2
TamilNadu	5.66	4.64	-18.0	4.71	4.86	3.1
Telangana		4.13	--		5.44	--
Uttar Pradesh	7.65	7.44	-2.7	4.72	6.19	31.2
West Bengal	6.98	5.71	-18.2	4.68	5.53	18.0
All GC States	**7.02**	**5.36**	**-23.6**	**5.22**	**5.41**	**3.6**

Source: Computed based on respective State's Finance Accounts data.

The fiscal deficit, which measures the difference between the total expenditure and total revenue (excluding borrowings), also shows substantial improvements across most states. A lower fiscal deficit indicates better fiscal management and lesser reliance on borrowing to meet expenditure. Andhra Pradesh and Maharashtra reduced their fiscal deficits by more than 50%, with Andhra Pradesh's deficit decreasing from 5.91% to 2.93% and Maharashtra's from 4.34% to 2.05%. Odisha's fiscal deficit reduction is particularly noteworthy, dropping from 5.06% to 0.53%, a decrease of 89.5%. The average revenue deficit for all general category states shifted from a

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deficit of 2.24% to a slight surplus of -0.09% of GSDP, indicating enhanced revenue generation and better expenditure control. The average fiscal deficit also showed a significant reduction from 4.64% to 2.61% of GSDP, showcasing improved fiscal discipline and reduced reliance on borrowing. The substantial decreases in both revenue and fiscal deficits (fig.1) suggest that the FRBM Act has been effective in encouraging states to adopt prudent fiscal practices, manage expenditures more efficiently, and enhance revenue generation. These improvements in fiscal management likely contribute to greater economic stability and growth at the state level.

Table 3 reveals significant changes in the average revenue expenditure on general and social services as a percentage of GSDP for various states before and after the enactment of the FRBM Act (2001-2016). In terms of general services expenditure, most states saw substantial reductions post-FRBM. Notable decreases include Andhra Pradesh (-45.3%), Goa (-41.4%), and Odisha (-36.2%). Table 3 reveals significant changes in the average revenue expenditure on general and social services as a percentage of GSDP for various states before and after the enactment of the FRBM Act (2001-2016). In terms of general services expenditure, most states saw substantial reductions post-FRBM. Notable decreases include Andhra Pradesh (-45.3%), Goa (-41.4%), and Odisha (-36.2%).This trend indicates a concerted effort across states to cut back on general service expenses, which typically include administrative and public service costs, as part of the fiscal consolidation measures mandated by the FRBM Act. Exceptions to this trend are observed in Jharkhand, which saw a slight increase (6.1%) in its general services expenditure, suggesting a different approach or unique fiscal challenges in the state.

Fig.4 Composition of total expenditure of general category states on services as percentage of GDP

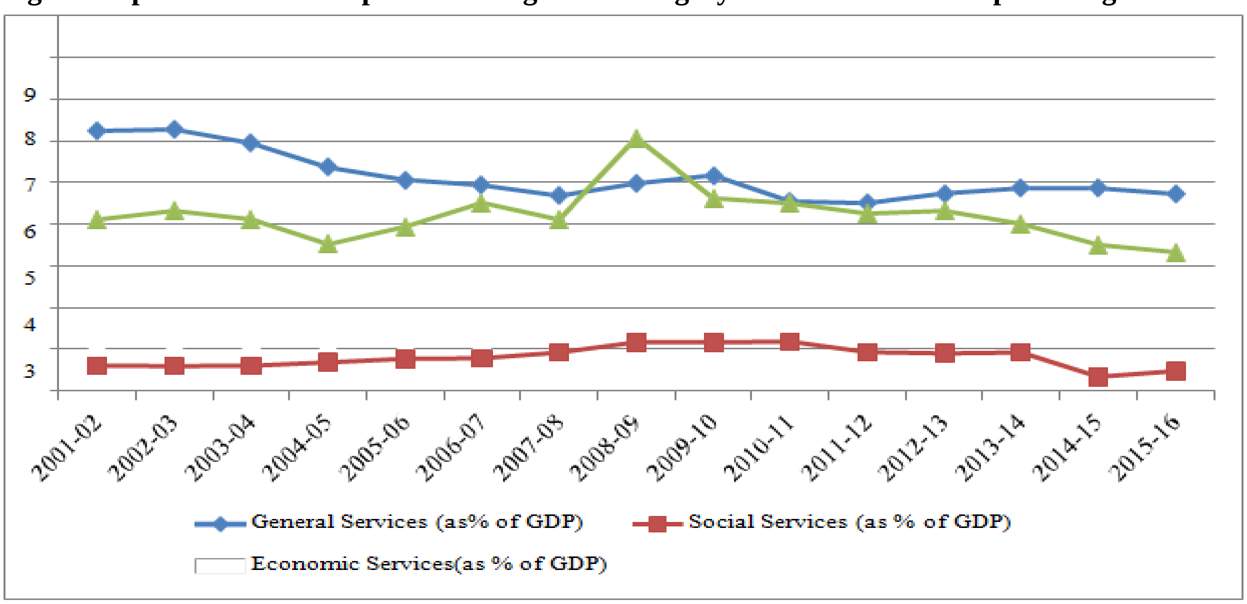

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Table 4: Revenue Expenditure on Economic Services and interest payment in Pre-FRBM and Post-FRBM Act Periods (2001-2016)

State	Average Revenue Expenditure on Economic Services as a percentage of GSDP			Average Revenue Expenditure on interest payment as a percentage of GSDP		
	Pre-FRBM	Post-FRBM	%Change	Pre-FRBM	Post-FRBM	%Change
Andhra Pradesh	5.62	4.13	-26.6	4.80	1.92	-60.1
Bihar	2.47	4.29	73.8	4.48	2.25	-49.7
Chhattisgarh	4.03	4.61	14.4	2.35	1.08	-53.9
Goa	5.78	4.94	-14.5	2.99	2.12	-29.2
Gujarat	4.39	2.43	-44.8	3.21	2.07	-35.6
Haryana	3.39	3.59	6.1	2.47	1.50	-39.2
Jharkhand	2.46	3.61	46.6	2.27	1.80	-21.0
Karnataka	4.48	4.02	-10.2	2.23	1.72	-22.9
Kerala	2.72	2.16	-20.7	3.04	2.43	-20.1
Madhya Pradesh	4.44	4.18	-5.9	2.84	2.01	-29.5
Maharashtra	1.99	2.11	5.8	2.23	1.66	-25.6
Odisha	2.74	3.83	40.0	4.89	1.88	-61.6
Punjab	2.57	3.04	18.4	4.08	2.96	-27.4
Rajasthan	2.78	3.69	32.6	4.08	2.42	-40.8
TamilNadu	3.15	2.42	-23.2	2.30	1.66	-28.0
Uttar Pradesh	2.70	3.39	25.8	3.69	2.73	-26.0
West Bengal	2.10	2.07	-1.6	4.13	2.84	-31.2
All GC States	**3.33**	**3.44**	**3.5**	**3.42**	**2.04**	**-40.2**

Source: Computed based on respective State's Finance Accounts data.

On the other hand, revenue expenditure on social services, which encompasses spending on education, healthcare, and social welfare, exhibited varied trends (fig. 4). While states like Bihar (32.5%), Uttar Pradesh (31.2%), and Jharkhand (25.8%) significantly increased their social services expenditure post-FRBM, indicating a prioritization of social development and welfare, others like Andhra Pradesh (-19.8%) and Gujarat (-13.5%) reduced their spending in this category. However, the increase in social services expenditure benefits society by ensuring the availability of essential services, contributing to the overall well-being of the population. It is crucial to balance fiscal discipline with the need to invest in human capital and social infrastructure, as these investments generate external benefits for society.Despite the fiscal

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constraints imposed by the FRBM Act, states aimed to ensure that essential social services were maintained or even enhanced, reflecting a strategic shift towards inclusive growth and development. Table 4provides insights into the changes in average revenue expenditure on economic services and interest payments as a percentage of GSDP for various states before and after the enactment of the FRBM Act (2001-2016).

Table 5: Average Own Tax Revenue (% of GSDP)

State	Pre-FRBM	Post-FRBM	%Change
Andhra Pradesh	10.53	7.77	-26.1
Bihar	4.12	5.30	28.8
Chhattisgarh	6.37	7.37	15.6
Goa	7.05	7.32	3.9
Gujarat	6.47	6.76	4.4
Haryana	7.53	6.91	-8.2
Jharkhand	4.19	4.92	17.4
Karnataka	8.18	9.60	17.3
Kerala	7.40	7.90	6.8
Madhya Pradesh	6.24	7.80	25.1
Maharashtra	7.06	7.14	1.0
Odisha	5.14	5.99	16.5
Punjab	6.49	7.23	11.4
Rajasthan	6.18	6.52	5.6
TamilNadu	8.23	8.54	3.8
Telangana		7.69	--
Uttar Pradesh	5.53	6.88	24.4
West Bengal	4.40	4.89	11.2
All GC States	**6.13**	**7.15**	**16.5**

Source: Computed based on respective State's Finance Accounts data.

Many states reported increases in economic services expenditure, which supports current economic activities and promotes growth.Notable increases include Bihar (73.8%), Odisha (40.0%), and Jharkhand (46.6%). While some states, particularly high-income ones like Gujarat (-44.8%), Tamil Nadu (-23.2%), and Goa (-14.5%) reduced their spending on economic services. This suggests a varied approach among states, with some prioritizing economic activities to stimulate growth, while others chose to exercise austerity in this area.Regarding interest

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payments, all states managed to reduce their expenditures, thereby creating additional fiscal space for current spending.Significant reductions were registered in Andhra Pradesh (-60.1%), Odisha (-61.6%), and Chhattisgarh (-53.9%). This trend reflects a concerted effort to reduce the liability to pay interest on past borrowings, thereby improving overall fiscal health and freeing up resources for other developmental activities. The overall reduction in interest payments across states demonstrates effective fiscal management and debt servicing strategies in the post-FRBM period.

Fig. 5 Average own tax revenue (% of GSDP)

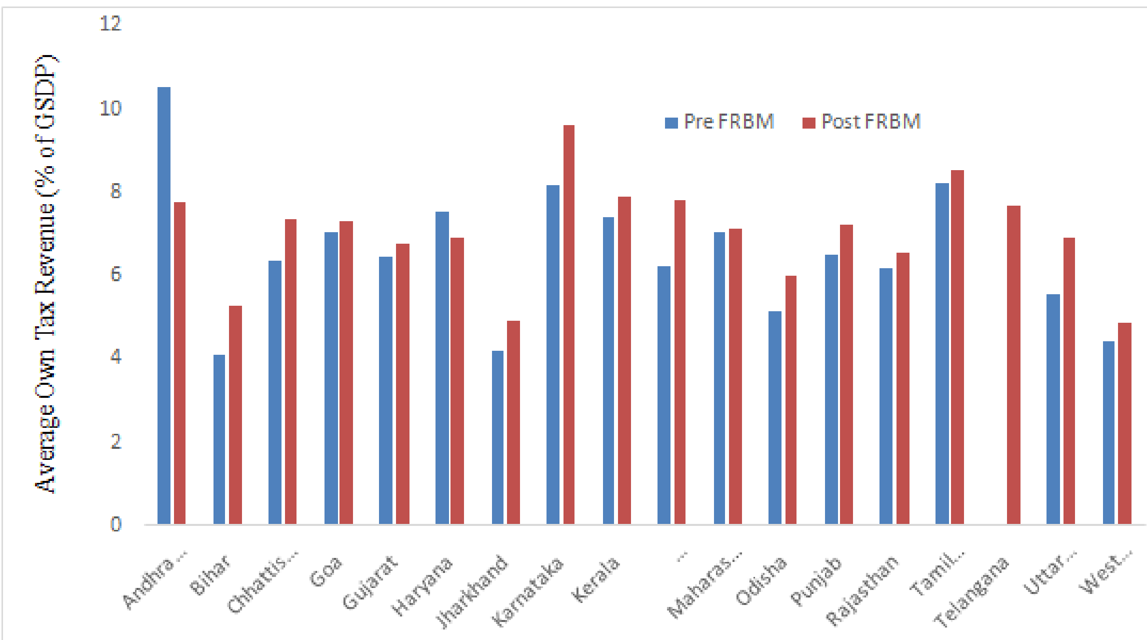

Table 5 presents the changes in average Own Tax Revenue (OTR) as a percentage of GSDP before and after the implementation of the FRBM Act. It reveals that low-income states like Bihar (28.8%), Madhya Pradesh (25.1%), Uttar Pradesh (24.4%), Jharkhand (17.4%), and Odisha (16.5%) significantly increased their OTR in post-FRBM period. This rise in tax revenue can be attributed to the higher average GSDP growth rates experienced by these low-income states compared to high-income states post-FRBM adoption. Overall, most states experienced an increase in their tax revenue post-FRBM, with the average increase for all General Category (GC) states being 16.5%. The study finds that low-income states have leveraged higher GSDP growth and central transfers to enhance their own tax revenue collection, employing both expenditure curtailment and revenue enhancement strategies to manage fiscal deficits effectively. The introduction of VAT has also played a significant role in aiding states in improving their tax revenue mobilization. This suggests that while the FRBM Act generally helped improve tax

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revenues, the impact varied significantly across states due to differing economic conditions and fiscal policies.

Empirical Analysis

The FRBM Act was implemented to achieve fiscal balance. The study attempts to examine whether the enactment of the FRBM Act has impacted the Fiscal Deficit to GDP ratio. To find the impact of the FRBM Act on fiscal balance in India the OLS method has been used. Data collected from State Finance Accounts spans the period from 2000-01 to 2015-16. In this study, the FRBM Act is indicated by a dummy variable, set to 1 for the years in which the Act was in effect and 0 for other years. Fiscal deficit as a proportion of GDP has emerged as a key indicator for measuring a country's fiscal health, summarizing the overall public finances by encompassing both expenditure and revenue.

Model Design

The fiscal deficit to GDP ratio is used as an indicator of fiscal balance. This study regresses the Fiscal Deficit to GDP (at market price) ratio, population growth, and the FRBM Act to determine the impact of the FRBM Act on fiscal balance. The equation indicates that the gross fiscal deficit to GDP ratio is a function of GDP growth, population growth, the FRBM Act, and the previous lagged fiscal deficit level. Symbolically, the models can be written as:

FD/GDP=f{GDPGR,PGR,FRBM,FD (-1)}

Symbolically, the model can be written as:

$$FD/GDP=\alpha_0+\alpha_1 GDPGR_t+\alpha_2 PGR_t+ \alpha_3 FRBM_t+ \alpha_4 FD_t+u_t$$

FD/GDP = Gross Fiscal Deficit / GDP (at market price)

GDP= Gross Domestic Product (at market price)

GDPGR = Gross Domestic Product Growth Rate (%)

PGR = Population Growth Rate (%)

FD (-1) = Previous Fiscal Deficit (Lagged)

The table 6 presents the results of regression analysis examining the impact of various variables on the fiscal deficit to GDP ratio (FD/GDP). The constant term indicates the expected value of the FD/GDP ratio when all independent variables are zero. The positive coefficient suggests a

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baseline fiscal deficit to GDP ratio of approximately 0.022, which is statistically significant at the 5% level (p-value < 0.05).GDP Growth Rate coefficient is -0.071 with a standard error of 0.096. The t-statistic is -0.739, with the p-value is 0.037. The negative coefficient indicates that an increase in GDP growth rate is associated with a decrease in the fiscal deficit- GDP ratio. This relationship is statistically significant at the 5% level, suggesting that higher economic growth helps in reducing fiscal deficits.Economic growth leads to higher income levels, increased business profits and greater consumer spending.As the economy expands, individuals earn more and businesses generate higher profits, resulting in increased tax revenues for the government. Personal income taxes, corporate taxes, and sales taxes/ VAT all contribute to this revenue boost. For instance, during periods of high economic growth, employment levels typically rise, leading to higher aggregate income and consequently, higher direct tax collections. Additionally, increased consumer spending boosts indirect tax revenues.This influx of tax revenue reduces the need for government borrowing, directly impacting the fiscal deficit positively. With a larger GDP, the government can raise more revenue without increasing tax rates. A growing economy provides a broader tax base, making it easier for the government to collect sufficient revenue to meet its expenditure needs.

Table 6 Empirical Results

Dependent Variable: FD/GDP **(**Fiscal Deficit to GDP ratio)				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.022764	0.1002	0.227185	0.0456
GDPGR	-0.071477	0.096704	-0.73913**	0.0176
PGR	0.065244	0.11095	0.58805*	0.0339
FRBM	-0.05975	0.457231	-0.13068*	0.0554
FD (-1)	0.609632	3.500655	0.174148	0.0634
R-squared	0.82145	Mean dependent var		0.078760
Adjusted R-squared	0.81862	S.D. dependent var		0.016864
S.E. of regression	0.027578	Akaikeinfocriterion		-6.437878
Sum squared residual	0.017855	Schwarzcriterion		-6.87866
Loglikelihood	95.31334	F-statistic		13.98089
Durbin-Watsonstat	2.064321	Prob(F-statistic)		0.000987

Note: FRBM dummy (FRBM) taken as1foryearswhichhasFRBMotheryears0

*Indicatesthetvaluesaresignificantat5percentlevel and ** significant at 1 percent level.

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The positive population growth rate coefficient implies that an increase in the population growth rate is associated with an increase in the fiscal deficit to GDP ratio. This result is statistically significant at the 5% level, indicating that higher population growth may exert pressure on fiscal resources, leading to higher deficits. The negative coefficient (-0.0597) of FRBM Act suggests that the implementation of the FRBM Act is associated with a reduction in the fiscal deficit to GDP ratio and this relationship is statistically significant (p-value <0.05), indicating that the effect of the FRBM Act on fiscal deficits is clearly established by this model. The coefficient Lagged Fiscal Deficit (0.609) indicates that past fiscal deficits have a positive impact on the current fiscal deficit to GDP ratio, however,this has not found statistically significant at the 5% level. Around 82.15% of the variations in the fiscal deficit to GDP ratio are explained by the independent variables in the model. This indicates a high level of explanatory power. The F-statistic tests the overall significance of the model. A highly significant p-value (less than 0.01) indicates that the model as a whole is statistically significant. The regression results suggest that GDP growth rate, FRBM Act and population growth rate significantly impact the fiscal deficit to GDP ratio. While the fiscal deficit-GDP ratio shows a positive relationship with the lagged fiscal deficit, its effect is not statistically significant.

Conclusion

Following the implementation of the FRBM Act, most states reduced their expenditures; however, expenditures in low and lower-middle-income states such as Bihar, Chhattisgarh, and Madhya Pradesh increased. This increase was partly due to their developmental needs. As these states are relatively less developed, they need to increase spending in order to accelerate investment. Thus, not all states adopted expenditure cuts to control deficits. However, the FRBM Act has positive impact on India's fiscal health. It instilled a culture of fiscal responsibility and promoted the disciplined budgetary practices, transparency and accountability in fiscal operations. By imposing limits on government borrowing, the Act helped in preventing the unsustainable debt accumulation. Over the years, the fiscal deficit as a percentage of GDP has generally trended downward, reflecting improved fiscal management. The focus on reducing the revenue deficit has led to a gradual shift from revenue expenditure to capital expenditure, enhancing the productive capacity of the economy. This is contributing for maintaining India's credit rating and reducing the cost of borrowing, thereby freeing up resources for developmental and infrastructure projects. While there have been challenges and deviations from the targets, the overall trajectory has been towards more sustainable fiscal practices.

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References

1. Buiter, W. H., & Patel, U. R. (2010). Fiscal Rules in India: Are They Effective? *Economic and Political Weekly, 45(37)*, 42-52.

2. Goyal, A. (2004). Fiscal Policy and Management in India. *Economic and Political Weekly, 39(9),* 965-970.

3. Jena, P. R. (2010). Fiscal Marksmanship in India: Analyzing the Fiscal Responsibility and Budget Management Act Experience. NIPFP Working Paper.

4. Joshi, V., & Little, I. M. D. (2004). Fiscal Policies and Fiscal Sustainability in India: Implications of the FRBM Act. *India: Macroeconomics and Political Economy,* 1991-2005.

5. Karnik, A. (2002). Fiscal Responsibility and Budget Management Bill: Offering Credible Commitments. Economic and Political Weekly, January 19, pp. 251-256.

6. Kumar, R., & Soumya, A. (2010). Fiscal Policy Issues for India after the Global Financial Crisis (2008-2010). Asian Development Bank Economics Working Paper Series, No. 249.

7. Ministry of Finance. (2004). Report of the Task Force on Implementation of the Fiscal Responsibility and Budget Management Act, 2003. (New Delhi: Government of India).

8. Mohanty, D. (2011). How Does the FRBM Act Impact Fiscal Discipline in India? *Reserve Bank of India Bulletin, 65(10)*, 25-31.

9. Mohanty, R. K. (2012). Fiscal Policy in India: An Assessment of Fiscal Rules. *The Indian Economic Journal, 60(1)*, 68-83.

10. Pandey,R.R.(2017). CooperativeFederalismandGoodsandSer4vicesTax.*AarThikaCharche: FPI Journal of Economics and Governance, 2(1):*9-12.

11. Purohit, M. C. (2007). Revenue Performance and Compliance under the FRBM Act. *Economic and Political Weekly, 42(14),* 1337-1341.

12. Rakshit, M. (2005). Some Macroeconomic Consequences of the FRBM Act. *Money and Finance, ICRA Bulletin.*

ISSN: 2455-8834

Volume:04, Issue:12 "December 2019"

13. Rangarajan, C., & Srivastava, D. K. (2005). Fiscal Deficit and Government Debt: Implications for Growth and Stabilization. *Economic and Political Weekly, 40(27)*, 2919-2934.

14. Rao, M. G., & Kumar, S. (2004). A Sustainable Debt Regime for India: An Assessment. *Economic and Political Weekly, 39(27)*, 2981-2988.

15. Srivastava, D.K. (2008). Fiscal Responsibility Rules in India: Impact and Reassessment. V.K.R.V. Rao Centenary Conference on National Income and other Macroeconomic Aggregates in a Growing Economy, April 28-30, 2008, organized by Delhi School of Economics and Institute of Economic Growth.

Appendices

Table 1A: Revenue Receipts of states (Rs. Crore)

State	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Andhra Pradesh	55459	58994	75108	86203	94441	110471	89278	86309
Bihar	23028	35527	44117	43810	57664	68393	66753	90621
Chhattisgarh	15314	17758	22600	25746	29464	32048	37859	45778
Gujarat	38629	41653	52757	62996	73695	79706	92122	96869
Haryana	17099	19272	24561	28493	33564	36791	39023	46537
Jharkhand	13213	15194	18781	22419	24770	26137	31565	40638
Karnataka	43655	48611	57855	69081	76310	87246	102554	116515
Kerala	24215	25855	30554	37222	43944	49148	55791	67150
Madhya Pradesh	33508	41228	51828	62502	70260	75749	84745	103084
Maharashtra	79984	83608	103475	118864	139518	144488	163923	183411
Odisha	24400	26063	32515	39526	43804	48762	56860	67215
Punjab	19515	21931	27395	26107	29462	33052	36545	40173
Rajasthan	27415	34605	44700	55446	65635	72956	88507	97169

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Tamil Nadu	54049	55384	69251	84640	98148	107256	121543	128103
Uttar Pradesh	77109	92554	110417	129167	145281	166341	192015	225347
West Bengal	33088	32624	37578	56661	68217	72558	75523	108260
Gujarat	38629	41653	52757	62996	73695	79706	92122	96869
Haryana	17099	19272	24561	28493	33564	36791	39023	46537
Jharkhand	13213	15194	18781	22419	24770	26137	31565	40638
Karnataka		48611	57855	69081	76310	87246	102554	116515
Kerala	24215	25855	30554	37222	43944	49148	55791	67150

Source: Computed based on respective State's Finance Accounts data.

Table 2A: Trends in Aggregate State Expenditure as a percentage of GDP

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15 (BE)
I. Revenue Expenditure	**12.40**	**11.80**	**11.70**	**11.60**	**12.10**	**12.30**	**12.00**	**11.90**	**12.20**	**13.20**	**13.90**
General Services of which:	5.50	5.00	4.80	4.50	4.30	4.60	4.40	4.30	4.30	4.40	4.50
Interest Payments	2.70	2.30	2.20	2.00	1.80	1.70	1.60	1.50	1.50	1.50	1.50
Pension	1.20	1.10	1.10	1.10	1.20	1.30	1.40	1.40	1.40	1.40	1.50
Other General Services	1.70	1.60	1.50	1.30	1.30	1.50	1.40	1.30	1.30	1.40	1.50
Social Services	**4.00**	**4.10**	**4.10**	**4.20**	**4.60**	**4.80**	**4.80**	**4.80**	**4.90**	**5.50**	**5.60**
Economic Service	**2.60**	**2.50**	**2.50**	**2.70**	**2.80**	**2.60**	**2.50**	**2.50**	**2.70**	**3.00**	**3.40**
Assignment & Compensation to Local Bodies and Aid Materials	**0.20**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.40**	**0.40**
II. Capital Expenditure	**2.30**	**2.50**	**2.50**	**2.60**	**2.80**	**2.50**	**2.20**	**2.30**	**2.20**	**2.60**	**2.70**
III. Total Expenditure (I+ II)	**14.70**	**14.40**	**14.30**	**14.20**	**14.90**	**14.90**	**14.10**	**14.30**	**14.40**	**15.80**	**16.70**

Source: Computed based on respective State's Finance Accounts data.

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Table 3A: Total Expenditure, Revenue, and Bridging Budget Gaps

Particulars	2000-01	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A. Total Expenditure	302150	514573	610753	659537	774312	948378	1079883	1259447	1445003	1615870	1879159	2450581
B. Total Revenue	219737	428519	532535	585085	647069	758734	930621	1086984	1246827	1363179	1561386	1955073
C. Gap (A-B)	82413	86054	78219	74452	127244	189645	149262	172463	198177	252691	317773	495508
D. Financed by (1+2)	82413	86054	78219	74452	127244	189645	149262	172463	198177	252691	317773	495508
Domestic Capital Receipts	90233	123150	21641	87191	132088	180893	171968	186466	223173	235565	299170	450847
A) Market Loans	12739	14764	16544	48429	106649	108542	87818	126532	147537	160156	191672	278204
B) Loans from the Centre	13812	-22276	-4227	-1021	-616	447	5355	-451	1296	3355	1084	13842
C) Other Loans	40567	102713	47225	6301	-6517	34624	35908	2331	4179	13670	41752	64758
D) State Provident Funds	9145	9889	133445	11457	39975	19613	23675	22646	22086	19468	21701	25867
(E) Misc. Capital Receipts	13970	18061	-171347	22027	-7403	17667	19212	35408	48076	38917	42961	68175
Overall Budgetary Surplus/Defici	7820	37096	-56578	12739	4845	-8751	22706	14003	24997	-17126	-18602	-44661

Source: Computed based on respective State's Finance Accounts data.

