

Centre of Excellence in Fiscal Policy and Taxation

**Fiscal Performance Index
Of
The States in India
An Empirical Model Based Evidences**

S.R. No. 008

02/2016/CEFT

Table of Contents

1. Backdrop.....	3
2. Motivation and Objective.....	4
3. Methodology.....	4
3.1 Composite Index of Fiscal Performance.....	4
3.2 Relative Distance Method.....	7
3.3 Z – Score (Standard Normal) Method.....	8
4. Data Sources.....	8
5. Estimation of FPI for States.....	9
6. Conclusion.....	12
7. Policy Interventions.....	13
References.....	14

Fiscal Performance Index: A State wise Comparison

ABSTRACT

Composite Fiscal Performance Index (FPI) is constructed for seventeen non special category states for four different time periods, FY 2003-04 to 2005-06 (P1), 2006-07 to 2008-09 (P2), FY 2009-10 to 2011-12(P3), and FY 2012-13 to 2014-15 (P4). FPI is a comprehensive index as it is multi-dimensional in nature and covers various aspects of fiscal performance of the states. This research study has taken a comprehensive approach to measure the Fiscal Performance Index of the states through composite index which consists of five Level 1 indices. These indices are Deficit Index, Revenue Efficiency Index, Expenditure Quality Index, Debt Index and Debt Sustainability Index. Each Level 1 index is mapped to two different Level 2 Indices. Level 2 indices are Revenue Deficit Index (RDI), Fiscal Deficit Index (FDI), Tax Revenue Index (SOTRI), Non Tax Revenue Index (SONTRI), Developmental Revenue Expenditure Index (DREI), Developmental Capital Expenditure Index (DCEI), Interest Payment to Revenue Receipt Index (IPRRI), Outstanding Debt Ratio Index (DRI), Debt Spread Index (DSI) and Rate Spread Index (RSI). Both Relative Distance Model and Z –Score Model are used to construct this Index. The position of Odisha is 11th in period 1, 5th in Period 2, 3rd in Period 3 and 1st in Period 4. To continue as the best performer in fiscal sphere, Revenue Efficiency Index of Odisha needs to be improved.

1. Backdrop

In India the Union Finance has drawn a great deal of attention by researchers and policy makers. However, the importance of state finance could not be neglected. It is essential for a country to have good fiscal prudence, both at the Centre as well as the State level. The Eleventh Finance Commission adopted a measure of fiscal discipline by constructing the Fiscal Self Reliance and Improvement Index (FSRII). It is estimated by taking the improvement of the ratio of Own Revenue Receipt to total Revenue Expenditure of an individual state relative to the average ratio across all the states. This index was used as criteria for devolution. The succeeding Twelfth Finance Commission also retained the same index a measure of fiscal discipline. Besides, tax Effort Index measured by the ratio of per capita own tax revenue of a State to its per capita

income as a criteria of horizontal devolution by Tenth Finance Commission. Since the fiscal discipline index captures the tax effort index, Thirteenth Finance Commission removed the tax effort index and retained only fiscal discipline measure to determine inter se shares of taxes. Dholakia (2005) criticized the single indicator based fiscal discipline measure as a criterion for tax devolution and developed a composite index of having eight indicators to measure fiscal performance of states. Das & Baig (2014) have also attempted to measure the fiscal performance of states by considering four indicators. Bhide & Panda (2002) evaluated the quality of Union Budget using composite index consisting of five indicators. Subsequently the fiscal discipline as a measure of horizontal devolution was scrapped by the Fourteenth Finance Commission.

2. Motivation and Objective

Presently fiscal discipline as criteria for central transfer to the states is abolished. But, it is still important to diagnose the fiscal health of the states. Taking cognizance of this issue the present study aims to measure the fiscal discipline of seventeen non-special category states of India by developing a composite Fiscal Performance Index (FPI) consisting of ten diverse fiscal indicators. **The FPI is constructed for seventeen non special category states.**

3. Methodology

The fiscal performance of the states is measured by a composite index. The composite index is measured by five ‘Level 1’ indices and ten ‘Level 2’ indices. Each of these ‘Level 1’ is mapped to two ‘Level 2’ indices.

3.1 Composite Index of Fiscal Performance

The fiscal performance of the states is measured by composite Fiscal Policy Index. Composite index is a comprehensive index as it is multi-dimensional in nature and covers various aspects of fiscal performance of the states. This research study has taken a comprehensive approach to measure the Fiscal Performance Index of the states through composite index which consists of five Level 1 indices. **These indices are 1. Deficit Index, 2.Revenue Efficiency Index, 3.Expenditure Quality Index, 4.Debt Index and 5.Debt**

Sustainability Index. These five major indices are combined to shape the Fiscal Performance Index (FPI). The composition of FPI is described below (Table 1).

Table 1: Composition of Fiscal Performance Index

Fiscal Performance Index (FPI)	Level 1 Index	Level 2 Index
	Fiscal Performance Index (FPI)	1. Deficit Index (DI)
Fiscal Deficit Index (FDI)		
2. Revenue Efficiency Index (REI)		Tax Revenue Index (SOTRI)
		Non Tax Revenue Index (SONTRI)
3. Expenditure Quality Index (EQI)		Developmental Revenue Expenditure Index (DREI)
		Developmental Capital Expenditure Index (DCEI)
4. Debt Index (DBI)		Interest Payment to Revenue Receipt Index (IPRRI)
		Outstanding Debt Ratio Index (DRI)
5. Debt Sustainability Index (DSI)		Debt Spread Index (DSI)
		Rate Spread Index (RSI)

(a) Deficit Index (DI) is made up following level 2 indices.

- (i) Revenue Deficit Index (RDI) : Revenue Deficit as a proportion of Gross State Domestic Product (RD/GSDP)
- (ii) Fiscal Deficit Index (FDI): Fiscal Deficit as a proportion of Gross State Domestic Product (FD/GSDP)

(b) Revenue Efficiency Index (REI) constitutes of the following level 2 indices.

- (i) Tax Revenue Index (SOTRI) : State Own Tax Revenue as a proportion of GSDP (SOTR/GSDP)

- (ii) Non Tax Revenue Index (SONTRI) : State Own Non-Tax Revenue as a proportion of Revenue Expenditure (SONTR/RE)

(c) Expenditure Quality Index (EQI) consists of the following level 2 indices.

- (i) Developmental Revenue Expenditure Index (DREI): Revenue Expenditure in developmental sector as a proportion of Revenue Receipts (DRE/RR)
- (ii) Developmental Capital Expenditure Index (DCEI): Capital outlay in developmental sector as a proportion of Revenue Receipts (DCE/RR).

(d) Debt Index (DBI) is made up of the following level 2 indices.

- (i) Interest Payment to Revenue Receipt Index (IPRRI): Interest Payments as a proportion of Revenue Receipts
- (ii) Outstanding Debt Ratio Index (DRI) : Outstanding Debt as a proportion of GSDP

(e) Debt Sustainability Index is based on the following level 2 indices.

- (i) Debt Spread Index (DSI): The difference of Growth Rate of nominal GSDP and growth rate in outstanding debt ($g_{\text{gdp}} - g_{\text{od}}$).
- (ii) Rate Spread Index (RSI): The difference of Growth Rate of nominal GSDP and cost of borrowing ($g_{\text{gdp}} - r$).

3.2 Relative Distance Method

Relative Distance method is used to construct all ten level 2 indices. The level 2 index is categorized into ‘Deprivation Index’ and ‘Improvement Index’.

The deprivation index includes RDI, FDI, IPRI and DRI. As higher RD/GSDP, FD/GSDP, IP/RR and Debt Stock/GSDP indicate negative (worse) fiscal performances. The Deprivation Index is constructed in such a way that, lower the ratio for a state; higher is the index value assigned to it. Therefore, the design of ‘Deprivation Index’ is given below (Equation 1).

$$\text{Deprivation Index (D)} = \frac{\text{Max (X)} - X}{\text{Max (X)} - \text{Min (X)}} \times 100 \dots \dots \dots \text{EQ (1)}$$

The Improvement Index consists of SOTRI, SONTRI, DREI, DCEI, DSI and RSI. As higher ratios in these indices indicates better fiscal performance. The Improvement Index is constructed in such a way that higher the ratio for a state; higher is its index value. Therefore, the design of ‘Improvement Index’ is given below (Equation 2).

$$\text{Improvement Index (I)} = \frac{Y - \text{Min (Y)}}{\text{Max (Y)} - \text{Min (Y)}} \times 100 \dots \dots \dots \text{EQ (2)}$$

Where, X refers to the actual value of the indicator for a given state. Max (X) and Min (X) are maximum and minimum value of the particular indicator across the states in a specified period. Similarly Y can be interpreted like X with the condition $X \neq Y$.

The value of D & I will lie on a 0 to 100 scale where 0 depicts worst performance and 100 implies the best performance.

These ‘Level 2’ indices are made so as to make them unidirectional and combining them horizontally (averaging) will give the corresponding ‘Level 1’ index. Again averaging the ‘Level 1’ indices gives the composite Fiscal Performance Index for each of the state. Equal weights are given at both level 1 and level 2 indices.

3.3 Z – Score (Standard Normal) Method

The Z-score (Standard Normal) is as an alternative method to arrive at the FPI of the states. The Z-score is estimated from the following equations.

$$\text{Deprivation Z – Score} = \frac{\text{Mean}(X) - X}{SD(X)} \times 100 \dots \text{EQ (3)}$$

$$\text{Improvement Z – Score} = \frac{Y - \text{Mean}(Y)}{SD(Y)} \times 100 \dots \text{EQ (4)}$$

The higher the Z-score better is the fiscal performance of the state. The difference between the mean value and the actual value is normalized with respect to the standard deviation. The estimation of the standard deviation is based upon the assumption that the data points follow normal distribution.

The Z – Score (Standard Normal) Method is adopted so as to validate the results of Relative Distance Method.

4. Data Sources

All the data pertaining to Level 2 Index is collected for FY 2002-03 to FY 2014-15 from EPWRF (Economic and Political Weekly Research Foundation)¹ for all the states except for Odisha. Relevant data for Odisha is sourced from “Finance Accounts, Government Odisha”.

Level 2 Index , Level 1 Index and composite Fiscal Performance Index are computed for the period FY 2003-04 to 2005-06 (P1) , 2006-07 to 2008-09 (P2), FY 2009-10 to 2011-12(P3), and FY 2012-13 to 2014-15 (P4). Therefore, FPI for the respective states is calculated for four different time periods in order to examine the migration in FPI for these 17 states over the period.

Since the data for debt stock is not available for the states other than Odisha, the outstanding liability is taken as proxy for the debt stock for rest of the states.

¹ EPWRF Data is source from Finance Accounts of the respective states.

For each time period, simple average of three years for all the relevant variables is taken to arrive at Level 2 index. Then the average of two relevant level 2 index (Table 1) is taken to construct the corresponding level 1 index. The average of these five level 1 indices is taken to arrive at the composite Fiscal Performance Index of a particular state for a particular period. This process is repeated to arrive at the FPIs of all the states under consideration. The maximum and minimum values of each relevant ratio pertaining to the level 1 index across the states in a specified time period are identified. Depending on the type of ratio, either deprivation index or improvement index methodology is applied.

5. Estimation of FPI for States

The estimated Level 1 indices for seventeen non special category states of India for four identified time periods is given in the **Appendix 1**. The composite FPI for all the states over the four time periods is given Table 2.

States	2003-04 to 2005-06		2006-07 to 2008-09		2009-10 to 2011-12		2012-13 to 2014-15	
	Index	Rank (R1)	Index	Rank (R2)	Index	Rank (R3)	Index	Rank (R4)
A.P	46.1	9	55.1	8	46.1	13	41.4	13
Bihar	28.8	16	46.9	11	57.5	4	53.6	5
Chhattisgarh	70.9	2	72.6	1	61.1	2	61.6	2
Goa	75.1	1	66.0	3	67.3	1	43.7	12
Gujarat	61.2	5	52.4	9	48.9	11	46.8	10
Haryana	64.9	4	68.4	2	57.1	5	40.3	14
Jharkhand	60.5	6	43.6	13	51.9	8	53.7	4
Karnataka	65.1	3	63.4	4	50.0	10	53.5	7
Kerala	42.7	13	32.3	16	29.2	15	20.9	17
MP	45.9	10	47.8	10	54.8	6	60.3	3
Maharashtra	54.1	8	57.4	6	48.5	12	47.8	9
Odisha	45.8	11	60.5	5	60.0	3	70.3	1
Punjab	34.1	15	37.5	15	26.0	16	25.1	16
Rajasthan	45.6	12	46.6	12	54.0	7	53.5	6
Tamil Nadu	57.5	7	56.1	7	51.1	9	45.9	11
UP	34.1	14	40.1	14	44.3	14	47.8	8
WB	19.4	17	20.9	17	16.5	17	25.7	15

There is large variation in the FPI because of variations in level 2 indices, which justifies the use of multiple indicators in assessing fiscal performance of states.

During 2003-04 to 2005-06, Goa, Chhattisgarh and Karnataka were in the top positions in terms of the FPI index with 1, 2 and 3 rank respectively. Punjab, Bihar and West Bengal were the worst performers.

In 2006-07 to 2008-09, Chhattisgarh took the first position followed by Haryana and Goa, while Punjab, Kerala and West Bengal were at the bottom.

Goa, Chhattisgarh and Odisha were placed in top three during 2009-10 to 2011-12, whereas Kerala, Punjab and West Bengal were positioned at the bottom.

During 2012-13 to 2014-15, Odisha is number 1 in position followed by Chhattisgarh and MP, while Kerala, Punjab and West Bengal are the worst performers.

Table-3 shows the improvement (+) or deterioration (-) of rank of states in FPI. It is observed that the Rank of Odisha has improved to 5th position in Period-2 from Rank 11 in Period-1. This is due to significant improvement in DI, DBI and DSI followed by improvement in REI and mild improvement in EQI.

Thereafter, despite a decline in REI and DSI, due to significant rise in other Level 1 indices, the rank of Odisha improved to 3rd position in Period-3.

In Period-4, Odisha in 1st position. All four Level 1 indices have contributed to this improvement. However, the most important contributing level 1 indices are DI and DBI.

Table 3. Improvement/Deterioration of Rank

States	Period 2	Period 3	Period 4
A.P	1	-5	0
Bihar	5	7	-1
Chhattisgarh	1	-1	0
Goa	-2	2	-11
Gujarat	-4	-2	1
Haryana	2	-3	-9
Jharkhand	-7	5	4
Karnataka	-1	-6	3
Kerala	-3	1	-2
MP	0	4	3
Maharashtra	2	-6	3
Odisha	6	2	2
Punjab	0	-1	0
Rajasthan	0	5	1
Tamil Nadu	0	-2	-2
UP	0	0	6
WB	0	0	2

Note: Positive value indicates improvement in Rank.

The result of Z-score (Standard Normal) Model is presented in Table-4. The Z-score index suggests that the FPI rank of Odisha has improved to 5 in period-2 from 10 in period-1. The rank has further improved to 3 in Period 3. In the recent period that is during 2012-13 to 2014-15, Odisha took the No. 1 spot in terms of fiscal performance.

Therefore, Z-score (Standard Normal) Model validates the Relative Distance Model.

Table 4. Composite Composite Fiscal Performance Index (FPI) Z-Score (Standard Normal Method)								
States	2003-04 to 2005-06		2006-07 to 2008-09		2009-10 to 2011-12		2012-13 to 2014-15	
	Index	Rank (R1)	Index	Rank (R2)	Index	Rank (R3)	Index	Rank (R4)
A.P	-9.6	9	18.8	8	-3.6	13	-17.6	13
Bihar	-72.2	16	-11.6	11	29.9	4	25.1	6
Chhattisgarh	73.2	2	83.1	1	51.7	2	56.8	2
Goa	93.2	1	53.3	3	70.9	1	-6.7	12
Gujarat	36.9	5	2.2	9	-1.4	12	1.4	9
Haryana	53.9	3	62.8	2	27.4	5	-19.8	14
Jharkhand	34.3	6	-39.8	14	13.9	8	24.7	7
Karnataka	52.8	4	44.5	4	6.8	10	26.4	5
Kerala	-25.1	13	-69.4	16	-72.3	15	-93.3	17
MP	-21.7	12	-7.4	10	25.8	6	48.6	3
Maharashtra	9.0	8	24.2	6	-0.4	11	2.8	8
Odisha	-12.1	10	42.9	5	46.3	3	84.4	1
Punjab	-49.9	14	-46.5	15	-81.1	16	-79.5	16
Rajasthan	-17.2	11	-17.0	12	17.8	7	27.4	4
Tamil Nadu	25.1	7	20.2	7	8.3	9	-2.8	11
UP	-57.8	15	-37.2	13	-14.6	14	1.1	10
WB	-112.8	17	-123.3	17	-125.4	17	-78.8	15

6. Conclusion

This research analysis basically attempts to measure the composite fiscal performance index of seventeen major non-special category states of India with a special focus on Odisha. The FPI is constructed by taking five level 1 indices wherein each level 1 index is mapped to two different level 2 indices. It is observed that the FPI of Odisha has improved during 2006-07 to 2008-09, due to significant improvement in deficit index, debt index and debt sustainability index, and a

mild increase in rest indices. Prudent management in improving both deficit indicators and public debt along with quality of expenditure has contributed to the robust fiscal performance of the Odisha during FY 2012-13 to FY 2014015.

7. Policy Interventions

However, to continue as the best performer in fiscal sphere, Revenue Efficiency Index of Odisha needs to be improved as it is just at the average level. Though efficiency in both tax and non-tax revenue is need to be improved further, relatively, the efficiency in the State Own Tax Revenue (SOTR) needs to addressed on priority basis.

References

Dholakia, A. (2005), “Measuring Fiscal Performance of States, An Alternative Approach”, *Economic and Political Weekly*, July 30.

Das & Baig (2014), “India’s state finances; declining debt but weak fundamentals”, *Deutsche Bank Research*, January 30.

Bhide, S. and Panda, M. (2002), “Evaluating Quality of Budgets with a Composite Index”, *Economic and Political Weekly*, March 30.

GoI (2000), “*Report of the Eleventh Finance Commission*”, Ministry of Finance, Government of India, July.

GoI (2004), “*Report of the Twelfth Finance Commission*”, Ministry of Finance, Government of India, Nov.

GoI (2009), “*Report of the Thirteenth Finance Commission*”, Ministry of Finance, Government of India, Dec.

GoI (2014), “*Report of the Fourteenth Finance Commission*”, Ministry of Finance, Government of India, Dec.

Appendix 1

Relative Distance Method

Level 1 INDEX										
States	2003-04 to 2005-06					2006-07 to 2008-09				
	DI	REI	EQI	DBI	DSI	DI	REI	EQI	DBI	DSI
A.P	28.5	63.9	65.5	35.3	37.6	45.8	67.4	71.7	40.0	50.7
Bihar	66.1	0.1	15.0	34.9	27.9	82.0	0.0	43.3	48.5	60.7
Chhattisgarh	86.4	35.8	57.2	97.6	77.3	92.4	35.2	47.4	94.0	94.0
Goa	53.7	67.3	85.3	71.1	98.2	55.6	64.6	76.0	65.1	68.7
Gujarat	52.9	27.4	76.9	59.9	88.9	60.0	28.6	65.7	56.7	51.0
Haryana	95.2	48.5	26.2	86.8	68.1	64.9	46.9	70.3	89.8	70.2
Jharkhand	26.6	17.1	97.2	96.5	64.9	19.7	18.3	95.2	85.0	0.0
Karnataka	90.9	49.7	43.1	90.8	51.1	64.4	37.0	62.8	87.9	64.6
Kerala	34.5	22.2	39.8	59.9	57.3	49.5	21.5	6.3	53.0	31.2
MP	41.9	31.7	77.1	67.4	11.4	76.6	27.4	37.0	65.2	32.6
Maharashtra	43.2	25.9	73.5	76.4	51.5	72.2	34.4	43.0	74.5	63.0
Odisha	77.4	17.8	11.5	45.1	77.4	95.2	24.7	15.1	71.6	95.9
Punjab	36.1	56.3	3.4	42.4	32.1	31.7	41.4	16.4	41.2	56.6
Rajasthan	39.3	25.8	70.0	43.2	49.8	56.8	27.1	55.9	45.2	47.9
Tamil Nadu	86.7	35.3	29.6	89.8	46.2	67.6	31.7	30.5	87.6	63.1
UP	17.1	14.3	70.2	34.6	34.3	51.5	22.0	51.6	40.2	35.5
WB	8.2	2.0	36.5	13.1	37.1	17.3	5.0	56.5	4.4	21.3
States	2009-10 to 2011-12					2012-13 to 2014-15				
	DI	REI	EQI	DBI	DSI	DI	REI	EQI	DBI	DSI
A.P	36.4	62.3	62.7	36.5	32.6	23.3	69.6	44.7	31.9	37.4
Bihar	70.8	2.5	53.1	62.8	98.4	46.5	5.1	49.2	73.2	94.1
Chhattisgarh	92.1	34.2	55.0	91.0	33.2	68.0	45.7	59.9	94.2	40.6
Goa	58.6	58.2	73.1	64.6	81.8	23.4	67.0	66.9	53.9	7.2
Gujarat	47.0	20.5	79.5	51.6	45.7	64.4	35.8	66.6	47.2	20.3
Haryana	37.4	22.0	87.7	77.5	60.7	29.3	27.9	59.4	61.7	23.2
Jharkhand	63.1	18.5	57.7	83.3	36.6	75.5	24.3	44.0	84.9	39.6
Karnataka	55.9	31.0	80.7	75.7	6.5	47.6	38.5	55.1	74.6	51.5
Kerala	25.2	21.9	29.2	44.7	25.0	0.0	45.1	11.7	35.7	12.1
MP	78.3	34.0	43.2	67.9	50.8	68.7	31.6	36.5	77.4	87.3
Maharashtra	55.3	19.8	67.1	67.0	33.4	69.2	23.9	36.8	64.4	44.5
Odisha	92.8	22.8	38.7	83.8	62.1	100.0	35.6	54.7	93.6	67.7
Punjab	25.4	34.8	3.2	39.7	26.9	21.6	28.4	18.9	26.9	29.9
Rajasthan	53.5	22.6	51.1	53.0	89.7	44.6	34.8	63.2	62.1	62.9
Tamil Nadu	49.4	25.0	55.4	78.6	47.3	54.2	39.0	28.7	71.8	35.7
UP	56.3	23.1	45.3	46.0	50.7	67.0	32.5	24.5	56.6	58.3
WB	0.0	0.1	50.0	2.4	30.2	33.6	0.0	26.2	10.1	58.5

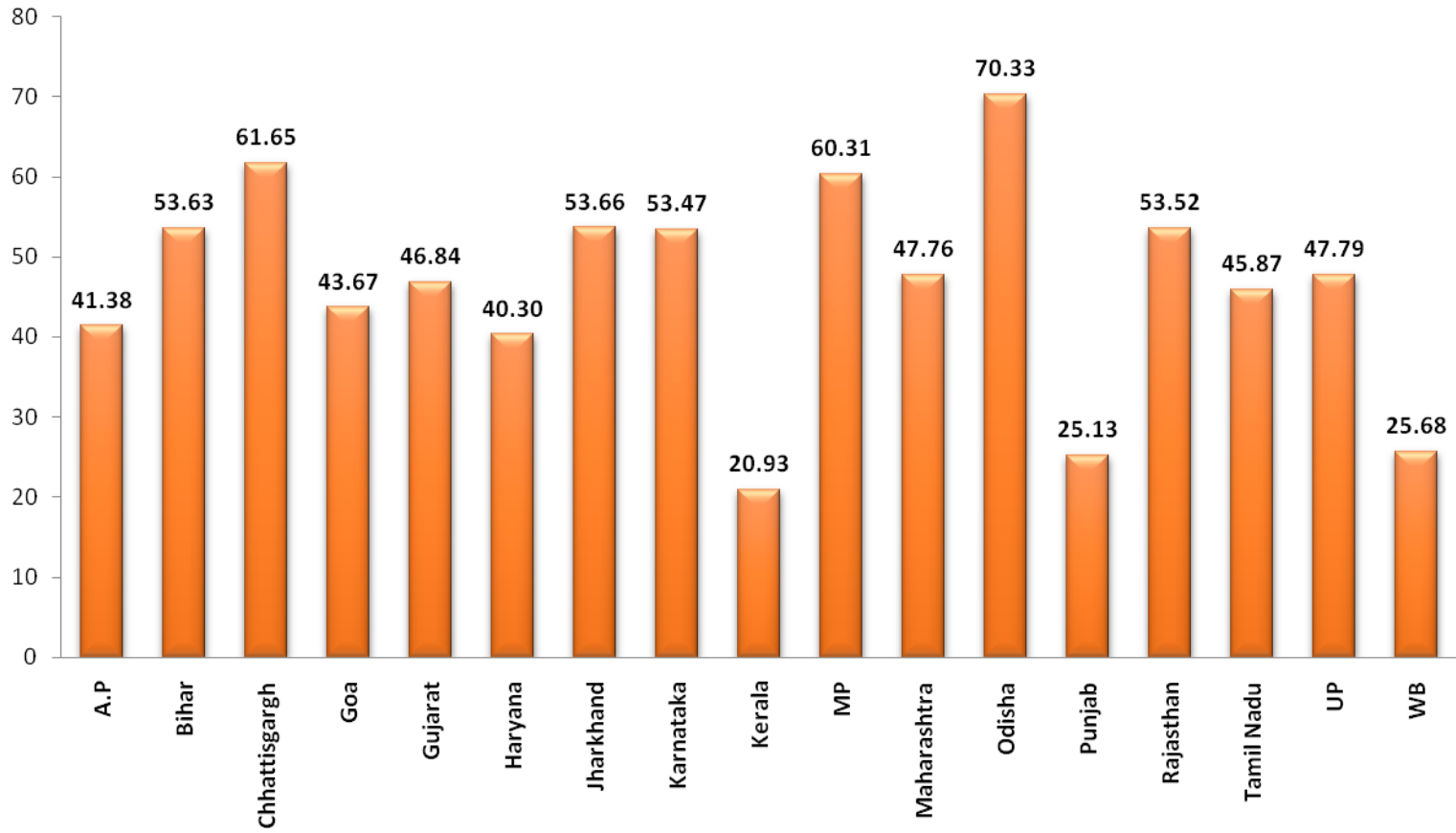
Notes: 1. DI- Deficit Index, REI- Revenue Efficiency Index, EQI-Expenditure Quality Index, DBI- Debt Index, DSI- Debt Sustainability Index.
2. Basic data for Odisha is collected from Finance Accounts, Govt. of Odisha. For other states the source is EPWRF.

Appendix 3

Z – Score (Standard Normal Model)

	Year	A.P	Bihar	Chhattisgarh	Goa	Gujarat	Haryana	Jharkhand	Karnataka	Kerala	MP	Maharashtra	Odisha	Punjab	Rajasthan	Tamil Nadu	UP	WB
Deficit Index	2001-02 to 2002-03	21.4	12.6	98.9	49.8	33.4	80.1	74.7	61.1	39.4	64.3	57.4	19.6	27.9	32.7	68.1	47.2	1.3
	2003-04 to 2005-06	28.5	66.1	86.4	53.7	52.9	95.2	26.6	90.9	34.5	41.9	43.2	77.4	36.1	39.3	86.7	17.1	8.2
	2006-07 to 2008-09	45.8	82.0	92.4	55.6	60.0	64.9	19.7	64.4	49.5	76.6	72.2	95.2	31.7	56.8	67.6	51.5	17.3
	2009-10 to 2011-12	36.4	70.8	92.1	58.6	47.0	37.4	63.1	55.9	25.2	78.3	55.3	92.8	25.4	53.5	49.4	56.3	0.0
	2012-13 to 2014-15	23.3	46.5	68.0	23.4	64.4	29.3	75.5	47.6	0.0	68.7	69.2	100.0	21.6	44.6	54.2	67.0	33.6
Revenue Efficiency Index	2001-02 to 2002-03	59.3	0.8	16.8	67.7	31.9	36.8	19.0	28.6	22.0	21.5	29.2	9.0	37.8	18.5	28.9	11.6	0.1
	2003-04 to 2005-06	63.9	0.1	35.8	67.3	27.4	48.5	17.1	49.7	22.2	31.7	25.9	17.8	56.3	25.8	35.3	14.3	2.0
	2006-07 to 2008-09	67.4	0.0	35.2	64.6	28.6	46.9	18.3	37.0	21.5	27.4	34.4	24.7	41.4	27.1	31.7	22.0	5.0
	2009-10 to 2011-12	62.3	2.5	34.2	58.2	20.5	22.0	18.5	31.0	21.9	34.0	19.8	22.8	34.8	22.6	25.0	23.1	0.1
	2012-13 to 2014-15	69.6	5.1	45.7	67.0	35.8	27.9	24.3	38.5	45.1	31.6	23.9	35.6	28.4	34.8	39.0	32.5	0.0
Expenditure Quality Index	2001-02 to 2002-03	49.5	32.7	38.8	22.3	76.6	41.1	64.2	55.0	25.5	46.1	43.7	35.5	10.4	49.2	23.9	29.8	40.1
	2003-04 to 2005-06	65.5	15.0	57.2	85.3	76.9	26.2	97.2	43.1	39.8	77.1	73.5	11.5	3.4	70.0	29.6	70.2	36.5
	2006-07 to 2008-09	71.7	43.3	47.4	76.0	65.7	70.3	95.2	62.8	6.3	37.0	43.0	15.1	16.4	55.9	30.5	51.6	56.5
	2009-10 to 2011-12	62.7	53.1	55.0	73.1	79.5	87.7	57.7	80.7	29.2	43.2	67.1	38.7	3.2	51.1	55.4	45.3	50.0
	2012-13 to 2014-15	44.7	49.2	59.9	66.9	66.6	59.4	44.0	55.1	11.7	36.5	36.8	54.7	18.9	63.2	28.7	24.5	26.2
Debt Index	2001-02 to 2002-03	38.6	27.0	78.5	62.7	57.4	77.9	98.8	84.8	55.8	77.4	79.0	23.5	34.4	36.6	86.3	33.2	18.7
	2003-04 to 2005-06	35.3	34.9	97.6	71.1	59.9	86.8	96.5	90.8	59.9	67.4	76.4	45.1	42.4	43.2	89.8	34.6	13.1
	2006-07 to 2008-09	40.0	48.5	94.0	65.1	56.7	89.8	85.0	87.9	53.0	65.2	74.5	71.6	41.2	45.2	87.6	40.2	4.4
	2009-10 to 2011-12	36.5	62.8	91.0	64.6	51.6	77.5	83.3	75.7	44.7	67.9	67.0	83.8	39.7	53.0	78.6	46.0	2.4
	2012-13 to 2014-15	31.9	73.2	94.2	53.9	47.2	61.7	84.9	74.6	35.7	77.4	64.4	93.6	26.9	62.1	71.8	56.6	10.1
Debt Sustainability Index	2001-02 to 2002-03																	
	2003-04 to 2005-06	37.6	27.9	77.3	98.2	88.9	68.1	64.9	51.1	57.3	11.4	51.5	77.4	32.1	49.8	46.2	34.3	37.1
	2006-07 to 2008-09	50.7	60.7	94.0	68.7	51.0	70.2	0.0	64.6	31.2	32.6	63.0	95.9	56.6	47.9	63.1	35.5	21.3
	2009-10 to 2011-12	32.6	98.4	33.2	81.8	45.7	60.7	36.6	6.5	25.0	50.8	33.4	62.1	26.9	89.7	47.3	50.7	30.2
	2012-13 to 2014-15	37.4	94.1	40.6	7.2	20.3	23.2	39.6	51.5	12.1	87.3	44.5	67.7	29.9	62.9	35.7	58.3	58.5
	Year	A.P	Bihar	Chhattisgarh	Goa	Gujarat	Haryana	Jharkhand	Karnataka	Kerala	MP	Maharashtra	Odisha	Punjab	Rajasthan	Tamil Nadu	UP	WB
Composite Index	2003-04 to 2005-06	46.1	28.8	70.9	75.1	61.2	64.9	60.5	65.1	42.7	45.9	54.1	45.8	34.1	45.6	57.5	34.1	19.4
	2006-07 to 2008-09	55.1	46.9	72.6	66.0	52.4	68.4	43.6	63.4	32.3	47.8	57.4	60.5	37.5	46.6	56.1	40.1	20.9
	2009-10 to 2011-12	46.1	57.5	61.1	67.3	48.9	57.1	51.9	50.0	29.2	54.8	48.5	60.0	26.0	54.0	51.1	44.3	16.5
	2012-13 to 2014-15	41.4	53.6	61.6	43.7	46.8	40.3	53.7	53.5	20.9	60.3	47.8	70.3	25.1	53.5	45.9	47.8	25.7
Rank	2003-04 to 2005-06	9	16	2	1	5	4	6	3	13	10	8	11	15	12	7	14	17
	2006-07 to 2008-09	8	11	1	3	9	2	13	4	16	10	6	5	15	12	7	14	17
	2009-10 to 2011-12	13	4	2	1	11	5	8	10	15	6	12	3	16	7	9	14	17
	2012-13 to 2014-15	13	5	2	12	10	14	4	7	17	3	9	1	16	6	11	8	15

FY 2012-13 to FY 2014-15
Fiscal Policy Index: Relative Distance Method



FY 2012-13 to FY 2014-15
Fiscal Policy Index: Z Score (Standard Normal) Model

