

# Fiscal Performance of North Eastern States of India

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## Abstract

The present paper made an attempt to measure the fiscal performance of North Eastern (NE) states and 14 major states to observe the relative position of NE states among all states of India. A composite fiscal performance index has been developed to observe the performance. It has been observed that the overall fiscal performance of NE states is better than the general category states. However, increasing debt as a percentage of GSDP of NE states is a worrisome matter.

**Keywords :** fiscal performance, composite index, North Eastern states of India

**JEL Classification :** H62, H63, H72

**Paper Submission Date :** January 20, 2016 ; **Paper sent back for Revision :** November 9, 2016 ; **Paper Acceptance Date :** December 5, 2016

India consists of 28 states and 7 union territories. The country can be divided into six regions such as Central India, East India, North India, South India, West India, and North East India. North East India [1] consists of eight states, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim [2], and Tripura (hereafter, NE states). Excluding Sikkim, the other NE states are popularly known as seven sister states. These states are unique in most respects and have similar economic and geographical characteristics. These states are endowed with vast natural resources in terms of forests, biological diversity, and hydroelectricity. However, the region has remained largely underdeveloped. These states are late starters in development and have been suffering from poor infrastructure and limited connectivity, both within the region as well as outside the region. NER is connected with the rest of India by a narrow stretch of land called the 'chicken's neck' [3]. In addition to their geographical bottlenecks, these states are witnessing a series of insurgencies and are alienated from the economic resurgence that the rest of the country is experiencing.

The above condition of these states merits special policy interventions since they need infrastructural support to ensure significant investments and developmental aids. Therefore, all NE states are officially declared as special category states [4]. On the basis of special states provisions, they avail special grants in the context of revenue devolution from Centre to states. Further, in recent days, important prescription for special category

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[1] Please visit [https://en.wikipedia.org/wiki/Northeast\\_India](https://en.wikipedia.org/wiki/Northeast_India) for a brief idea about North East India.

[2] Sikkim was recognized as a part of North-East states in the 1990s and integrated as the eighth North Eastern Council state in 2002.

[3] It is formally the Siliguri Corridor, a narrow strip of Indian territory connecting the NE states to the rest of India.

[4] Other than the NE States, other special category states in India are Himachal Pradesh, Jammu & Kashmir, and Uttarakhand.

states is interest free loans with rationalization of public expenditure based on growth enhancing sectoral allocation of resources.

Recently, the NE states are in limelight and their issues have become more significant and serious, particularly after the initiative of the Central Government of India in terms of India's Look East Policy (LEP) [5] because it has been realized by Indian policy makers (especially after the inclusion of Myanmar into ASEAN as full member in 1997) that development of physical connectivity between NE states and Southeast Asia is a prerequisite for utilizing the opportunities provided by LEP. However, when the development of NE states is a major concern, the unsatisfactory performance of these states in their economic growth and development and continuing fiscal imbalances in terms of mounting debt burden even after availing special central financial assistance is another area of concern. This has drawn attention of people, particularly, in the context of role of central assistance and rate of development. The argument is, 'though these states are getting special assistance from the Centre because of their special status, still their development is not satisfactory; rather, they are suffering from fiscal imbalances and social conflict'. Social scientists hold the view that the grant given by the Centre is not working for development; rather, it is helping for social conflict in terms of terrorism or insurgency. For example Rahman (2013) [6] explained: there is input of terrorism (commonly and euphemistically referred to as 'insurgency') where there has been so little industrial activity in the last 30 years, people have managed to turn terrorism into an industry. It started as a cottage industry, but has now become a medium-scale industry of sorts. If we give it a few more years, we shall probably see terrorism turned into a heavy industry. This is what happens when the benevolent Centre keeps on giving huge dollops of grants to states even when the states fail to show any performance or even to establish convincingly how and where the money was spent.

Further, it is also argued that there is no hard budget constraint for these states because the central transfer is high, but the general category states suffer from hard budget constraints. Through the enactment of Fiscal Responsibility and Budget Management Act (FRBM), these states are also availing the benefit of debt swapping and debt-relief schemes, which facilitate a reduction of the average annual rate of interest. There is a necessity of developing all these states on par with other states, which can only be possible if all these states are guided by the norms of inter-state equity based on fiscal efficiency (Rana, 2012) [7]. In addition to the above issues, the fiscal-federalism set up has been questioned in a different context relating to the provision of grant and loans for general/major category states and special category states.

## Literature Review

Recently, measurement of fiscal performance has received interest among scholars. Few prominent studies in this line are as follows :

Chaitanya (2006) evaluated the fiscal performance of Andhra Pradesh and evaluated aspects such as expenditure management, debt management, and revenue raising efforts initiated by the state. The study by Dash (2010) was based on measurement of fiscal performance of Orissa using the composite index model. While constructing the composite fiscal performance index of Orissa for the study period from 1990-91 to 2008-09, he observed that (a) the best performance year for the state was 1990-91, (b) the worst performance year was 2001-02, (c) the performance deteriorated from 1990-91 to 2001-02, (d) the performance of the state started to recover after 2001-02 and the state was observed to be performing well.

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[5] In the year 1991-92, under the then Prime Minister, P.V. Narasimha Rao, India launched its "Look East" Policy (LEP), an active economic policy of engagement with Southeast Asia to be implemented as an official initiative in achieving two objectives: to encourage trade links with individual partners and to provide foreign employment for India's own expanding work force.

[6] Please visit <http://inpec.in/2013/05/14/the-north-east-in-indias-look-east-policy/> for a discussion on the issue.

[7] Please visit for a discussion <http://www.mightylaws.in/985/concept-special-category-states-india>.

The cited studies are extensive and theoretical in nature focusing on providing a macro picture of all the states or fiscal position of major states and presented the findings in time series analysis form. However, there are few popular works which are restricted to the North-Eastern states only. For example, Dash (2011) studied the fiscal performance of Tripura and constructed the Tripura Fiscal Performance Index. Similarly, Dash and Tiwari (2011) studied the fiscal performance of all North Eastern states, developing a North Eastern Fiscal Performance Index and tested the non linear stationary property using nonlinear panel unit root test of Ucar and Omay (2009). Dash and Rath (2016a) examined the fiscal problems and the role of central assistance in the context of fiscal management at the sub-national level, particularly with reference to special category states in India like the North Eastern states and recommended that there should be a mechanism regarding how to control their non plan revenue expenditure so as to make the plan assistance available only for developmental expenditure. Further, Dash and Rath (2016b) attempted to observe the deficit trend and debt to GSDP scenario of North Eastern States of India over a period of 20 years, that is, from 1991-2010. It has been observed that the deficit burden of NE states is because of different types of non plan revenue expenditure other than interest payment. Though the NE states are special category states that get more grants than loans from the central government, these states are unable to attain revenue sufficiency and go for debt. The average of debt as a percentage of GSDP shows an increasing trend for NE states, which is negative from the view point of revenue management and planning for developmental expenditure.

Fiscal performance index formation is one popular method observed to be followed by many scholars. Dholakia and Solanki (2001) studied the fiscal performance and proposed a composite index of fiscal performance consisting of six different fiscal indicators. Bhide and Panda (2002) came up with another composite fiscal index, made up of five components for judging the quality of central government budgets. They ranked states on the basis of the value of the index for different years for judging the quality of central government budgets consisting of six different fiscal indicators and the states were ranked on the basis of the value of the index. Venkatraman (2003) did not construct a composite index, but ranked the states according to their fiscal achievements by using six indicators. Further, Dholakia (2005) proposed an alternative approach to fiscal performance measurement by constructing a composite fiscal performance index using eight indicators.

## Objectives and Research Methodology

This study was conducted during 2014 as a part of the Ph.D work started in the year 2010. So, the study period is from 1991 to 2010. The study examines the scenario over a 20 year period. The objective of this study is to measure the fiscal performance of each NE state as well as 14 major states to examine the fiscal performance of NE States and observe their relative position at the national level and also within the NE region level. The paper used the latest available data collected from Hand Book of Statistics on State Government Finances published in the year 2010 by the Reserve Bank of India, which is widely accepted as authentic.

To measure the fiscal performance of the North Eastern states, we have developed the North Eastern Fiscal Performance Index (NEFPI) following the approach suggested by Dholakia (2005) [8]. The NEFPI is a composite index consisting of three individual indices such as (a) Deficit Indicator Index (DII), (b) Own Revenue Effort Index (OREI), and (c) Expenditure and Debt Servicing Index. Hence, NEFPI is a simple average of these three indices.

Deficit Indicator Index (DII) is calculated from three components related to deficit such as (a) Gross fiscal deficit as a proportion of total expenditure ( $GFD/TEX$ ) ; (b) Revenue deficit as a proportion of net fiscal deficit ( $RD/NFD$ ), and (c) Capital outlay as a proportion of net fiscal deficit ( $CO/NFD$ ).

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[8] For details see Dholakia (2005).

Own Revenue Effort Index (OREI) is calculated from two components related to revenue performance of states such as (a) Own tax collection as proportion of revenue expenditure (OT/REX) and (b) Own non-tax collection as a proportion of revenue expenditure (ONT/REX).

Expenditure and Debt Servicing Index (EDSI) is calculated from the three components of debt performance of the states such as : (a) Non-Developmental Revenue Expenditure as a proportion of revenue receipts (NDRE/RR), (b) Interest Payment as a proportion of revenue expenditure (IP/REX), and (c) debt repayment as a proportion of Central Fiscal Transfers received by the state (DR/GCFT).

However, it is not possible to calculate the three specified indices with simple average because we have ratios that are with different numerators and denominators. Therefore, to calculate these indices, we have followed the methodology developed by Morris and McAlpin (1982) used for constructing the Physical Quality of Life Index (PQLI).

To develop the NEFPI, we have followed the formulae as given in the Table 1. Accordingly, we first identified the worst and best values of each indicator during the study period that is 1990-91 to 2008-09. We defined the best and the worst values in such a way that all the indices became unidirectional and could be horizontally combined to form the NEFPI. Therefore, an increase in the value of an indicator index would mean improvement in fiscal performance and vice versa. Further, for each indicator, the performance of an individual state has been set between 0 and 100 ; where zero represents an absolutely defined worst performance and 100 represents an absolutely defined best performance.

As the worst and best values are based on the 'actual' fiscal achievements of one or more states during the post-reform period, they are neither unrealistic nor over-ambitious. In other words, 0 and 100 represent the worst and

**Table 1. Critical Values and Formulae for Indices Formation**

Indicators	Best Value(=100)	Worst Value 'W' (=0)	Formula
	'V'- Best Value	'W'- Worst Value	'A'- Actual Value
<b>A. Deficit Indicator Index (DII)</b>			
1. Gross Fiscal Deficit as a Percentage of Total Expenditure ( $GFD/TEX*100$ )	$V = (V-1)$ (Lowest Value)	$W$ (Highest Value)	$(W-A)/(W-V)*100$
2. Revenue Deficit as a Percentage of Net Fiscal Deficit ( $RD/NFD*100$ )	$V = (V-1)$ (Highest Value)	$W$ (Lowest Value)	$(W-A)/(W-V)*100$
3. Capital Outlay as a Percentage of Net Fiscal Deficit ( $CO.NFD*100$ )	$V = (V+1)$ (Highest Value)	$W$ (Lowest Value)	$(A-W)/(V-W)*100$
<b>B. Own Revenue Effort Index (OREI)</b>			
1. Own Tax Revenue as a percentage of Revenue Expenditure ( $OTR/REX*100$ )	$V = (V+1)$ (Highest Value)	$W$ (Lowest Value)	$(A-W)/(V-W)*100$
2. Own Non-Tax Revenue as a Revenue Expenditure ( $ONTR/REX*100$ )	$V = (V+1)$ (Highest Value)	$W$ (Lowest Value)	$(A-W)/(V-W)*100$
<b>C. Expenditure and Debt Servicing Index (EDSI)</b>			
1. Non Developmental Revenue Expenditure as a Percentage of Revenue Receipt ( $NDRE/RR*100$ )	$V = (V-1)$ (Lowest Value)	$W$ (Highest Value)	$(W-A)/(W-V)*100$
2. Interest Payment as a Percentage of Revenue Expenditure ( $IP/REX*100$ )	$V = (V+1)$ (Highest Value)	$W$ (Lowest Value)	$(W-A)/(W-V)*100$
3. Debt Repayment as a Percentage of Gross Central Fiscal Transfer ( $DR/GCFT*100$ )	$V = (V+1)$ Highest Value)	$W$ (Lowest Value)	$(A-W)/(V-W)*100$

best 'observed' values of an indicator, respectively and not the 'hypothetical' values. In order to aid the calculations, one unit point was added to the best values of the indicators.

## Data Analysis and Interpretation

This section intends to examine fiscal performance of NE states along two dimensions :

(i) The relative position of each NE state among fiscal performance of all NE states, and

**Table 2. Deficit Indicator Index (DII)**

State	1990-95		1995-00		2000-05		2005-2010	
	Average		Average		Average		Average	
	Value	Among all states	Value	Among all states	Value	Among all states	Value	Among all states
<b>NE States</b>								
1. Arunachal Pradesh	77.03	1(1)	77.82	1(1)	63.5	3(3)	57.97	14(4)
2. Assam	62.61	7(4)	54.77	5(4)	49.27	6(4)	54.26	15(5)
3. Manipur	74.34	3(3)	63.36	4(3)	63.52	2(2)	67.26	6(2)
4. Meghalaya	17.08	18(7)	27.34	14(6)	9.65	22(8)	32.39	21(7)
5. Mizoram	68.19	6(3)	76.63	2(2)	70.48	1(1)	77.99	3(1)
6. Nagaland	39.82	14(5)	41.52	10(5)	41.85	9(6)	62.32	10(3)
7. Sikkim	14.84	22(8)	25.35	16(7)	44.94	8(5)	29.13	22(8)
8. Tripura	24.65	17(8)	21.49	18(8)	15.17	20(7)	38.54	20(6)
<b>Average of NE states</b>	<b>47.32</b>		<b>48.53</b>		<b>44.79</b>		<b>52.48</b>	
<b>14 Major States</b>								
1. Andhra Pradesh	49.5	12	30	13	29.13	11	76.43	04
2. Bihar	15.27	21	18.4	20	25.34	12	39.53	19
3. Gujarat	49.58	11	32.09	12	18.55	17	60.63	13
4. Haryana	24.06	18	8.8	22	13.18		53.82	16
5. Karnataka	43.61	13	32.15	11	31.13	10	78.41	02
6. Kerala	72.2	04	50.02	07	15.19	19	47.66	17
7. Madhya Pradesh	35.94	15	21.59	17	19.33	16	61.76	11
8. Maharashtra	76.93	02	64.72	03	58.91	04	65.4	08
9. Orissa	59.94	08	46.92	08	52.45	05	60.85	12
10. Punjab	56.87	10	51.44	06	47.51	07	78.83	01
11. Rajasthan	59.41	09	25.46	15	18.06	18	65.19	09
12. Tamil Nadu	21.19	19	19.35	19	20.01	14	65.79	07
13. Uttar Pradesh	31.68	16	12.91	21	24.43	13	75.32	05
14. West Bengal	69.9	05	43.9	09	19.88	15	44.15	18
<b>Average of 14 major states</b>	<b>47.57</b>		<b>32.69</b>		<b>28.07</b>		<b>62.41</b>	
<b>Average of all states</b>	<b>47.44</b>		<b>40.61</b>		<b>36.43</b>		<b>57.44</b>	

Notes: Rank in parenthesis presents rank among all NE states.

(ii) The relative position of each NE state among fiscal performance of all states, that is, 8 NE states and 14 major states. So, we calculated the fiscal performance value and then we ranked the states in terms of their calculated value. Ranking has been done among all NE states and among all states for their components as well as for their fiscal performance composite index. The three component indices such as Deficit Indicator Index (DII), Own Revenue Effort Index, and Expenditure and Debt Servicing Index are presented in Table 2, Table 3, and Table 4, respectively. Table 5 and Figure 1 present the composite index which represents the overall fiscal performance of NE states as well as that of the 14 major states.

(1) **Deficit Indicator Index (DII)** : The Deficit Indicator Index (DII) shows that during 1990-95, the best

**Table 3. Own Revenue Effort Index (OREI)**

State	1990-95		1995-00		2000-05		2005-2010	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
	Value	Among all states	Value	Among all states	Value	Among all states	Value	Among All states
<b>NE States</b>								
1. Arunachal Pradesh	26.45	1(1)	14.42	8(7)	27.69	4(4)	49.64	4(4)
2. Assam	51.73	2(2)	30.86	3(3)	41.91	3(3)	55.9	2(2)
3. Manipur	44.65	3(3)	26.71	4(4)	24.98	5(5)	53.91	3(3)
4. Meghalaya	20.43	7(6)	30.94	2(2)	15.42	7(7)	49.37	5(5)
5. Mizoram	15.11	8(7)	5.22	15(8)	23.67	6(6)	38.91	8(8)
6. Nagaland	31.45	5(5)	20.17	7(6)	64.82	1(1)	45.83	7(7)
7. Sikkim	38.11	4(4)	47.98	1(1)	51.09	2(2)	68.85	1(1)
8. Tripura	10.39	11(8)	20.85	5(5)	6.5	12(8)	48.59	6((6)
<b>Average of NE States</b>	<b>29.79</b>		<b>24.64</b>		<b>32.01</b>		<b>51.37</b>	
<b>14 Major states</b>								
1. Andhra Pradesh	7.33	14	4.69	17	6.5	12	9.79	11
2. Bihar	23.48	6	20.82	6	6.52	10	3.36	21
3. Gujarat	10.39	10	8.44	10	4.55	14	9.62	12
4. Haryana	13.76	9	10.58	9	13.24	8	15.2	9
5. Karnataka	6.6	16	5.71	13	5.23	13	9.11	13
6. Kerala	2.33	22	2.42	21	1.2	22	2.72	22
7. Madhya Pradesh	4.89	18	3.22	19	2.52	20	4.28	19
8. Maharashtra	7.15	15	5.55	14	2.79	18	7.73	15
9 Orissa	3.39	21	1.52	22	3.27	16	7.17	16
10 Punjab	8.49	13	7.85	11	7.82	9	8.83	14
11 Rajasthan	5.6	17	4.24	18	2.61	19	6.84	17
12 Tamil Nadu	4.86	19	6.4	12	4.47	15	10.75	10
13 Uttar Pradesh	4.52	20	2.9	20	2.82	17	6.23	18
14. West Bengal	8.67	12	5.2	16	2.43	21	3.9	20
<b>Average of 14 Major states</b>	<b>7.96</b>		<b>6.39</b>		<b>4.71</b>		<b>7.53</b>	
<b>Average of all states</b>	<b>18.87</b>		<b>15.51</b>		<b>18.36</b>		<b>29.45</b>	

Notes: Rank in parenthesis presents rank among all NE states.



**Table 4. Expenditure and Debt Servicing Index (EDSI)**

State	1990-95		1995-00		2000-05		2005-2010	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
	Value	Among all states	Value	Among all states	Value	Among all states	Value	Among all states
<b>NE States</b>								
1. Arunachal Pradesh	77.39	1(1)	89.37	1(1)	87.46	1(1)	82.42	1(1)
2. Assam	55.68	3(3)	56.07	2(2)	62.55	2(2)	48.16	3(3)
3. Manipur	38.24	8(7)	30.72	17(7)	49.99	7(7)	44.47	5(5)
4. Meghalaya	32.77	16(8)	40.97	7(6)	52.06	6(6)	44.37	6(6)
5. Mizoram	43.29	5(4)	45.44	5(4)	54.2	5(5)	52.87	2(2)
6. Nagaland	40.02	6(5)	44.17	6(5)	57.02	4(4)	42.45	7(7)
7. Sikkim	55.91	2(2)	19.22	21(8)	48.02	8(8)	36.45	8(8)
8. Tripura	39.5	7(6)	48.69	4(3)	57.95	3(3)	45.18	4(4)
<b>Average of NE states</b>	<b>47.85</b>		<b>46.83</b>		<b>58.65</b>		<b>49.54</b>	
<b>14 Major States</b>								
1. Andhra Pradesh	24.24	21	21.9	20	28.01	21	29.43	18
2. Bihar	55.31	4	50.36	3	39.2	10	34.5	11
3. Gujarat	35.57	9	31.67	15	33.9	15	30.41	16
4. Haryana	27.68	20	27.24	19	36.9	13	33.34	13
5. Karnataka	22.67	22	15.2	22	10.83	22	26.24	22
6. Kerala	34.88	12	34.92	11	32.73	19	29.71	17
7. Madhya Pradesh	33.36	15	31.38	16	32.54	20	27.71	21
8. Maharashtra	33.48	14	31.95	14	33.1	18	32.09	15
9. Orissa	34.34	13	32.91	12	39.15	11	35.21	9
10. Punjab	29.97	19	35.54	9	44.71	9	28.99	19
11. Rajasthan	31.97	17	35.15	10	36.2	14	35.14	10
12. Tamil Nadu	30.33	18	29.46	18	33.42	17	28.88	20
13. Uttar Pradesh	35.47	10	36.03	8	38.65	12	33.05	14
14. West Bengal	35	11	32.77	13	33.89	16	33.54	12
<b>Average of 14 major states</b>	<b>33.16</b>		<b>31.89</b>		<b>33.8</b>		<b>31.3</b>	
<b>Average of all states</b>	<b>40.5</b>		<b>39.36</b>		<b>46.22</b>		<b>40.42</b>	

Notes: Rank in parenthesis presents rank among all NE States.

performing state was Arunachal Pradesh and the worst performing state was Sikkim among all states. Other NE states like Manipur, Assam, and Mizoram were found to be performing well in terms of deficit management since their value of performance is more than the average value of NE states as well as the average value of all states. Though there was variation in performance in the context of all states in the next phase (1995-00), the performance of most of the NE states continued to be the same among NE states. Arunachal Pradesh continued to achieve the first rank among all states as well.

Manipur continued at 3<sup>rd</sup> rank and Assam continued at 4<sup>th</sup> rank, Nagaland continued at 5<sup>th</sup> rank, and Tripura at 8<sup>th</sup> rank among NE states. However, while the performance of Sikkim deteriorated among all states, it increased

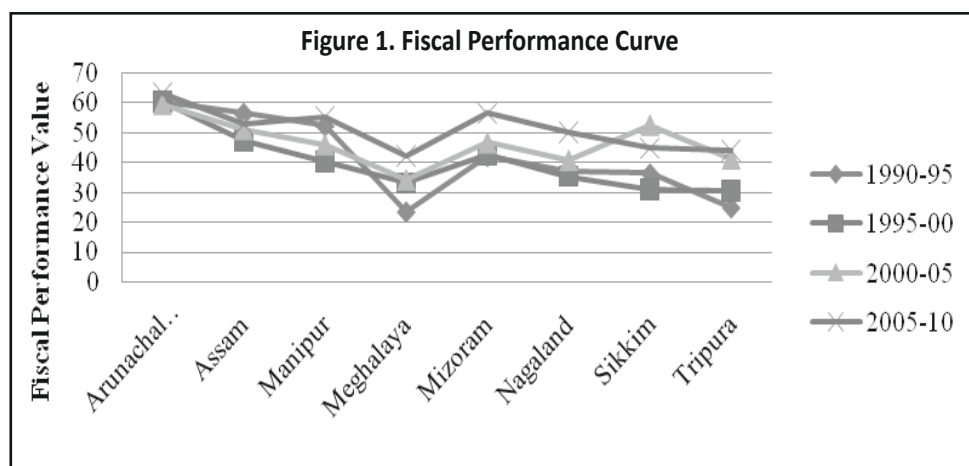
**Table 5. Fiscal Performance Composite Index (FPCI)**

State	1990-95		1995-00		2000-05		2005-2010	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
	Value	Among all states	Value	Among all states	Value	Among all states	Value	Among all states
<b>NE States</b>								
1. Arunachal Pradesh	60.29	1(1)	60.53	1(1)	59.55	1(1)	63.34	1(1)
2. Assam	56.67	2(2)	47.23	2(2)	51.24	3(3)	52.77	4(4)
3. Manipur	52.41	3(3)	40.26	4(4)	46.17	5(5)	55.24	3(3)
4. Meghalaya	23.43	20(8)	33.07	7(6)	34.34	8(8)	42.04	8(8)
5. Mizoram	42.2	4(4)	42.43	3(3)	46.72	4(4)	56.54	2(2)
6. Nagaland	37.1	7(5)	35.29	5(5)	40.85	7(7)	50.2	5(5)
7. Sikkim	36.29	9(6)	30.85	9(7)	52.59	2(2)	44.81	6(6)
8. Tripura	24.85	16(7)	30.34	10(8)	41.4	6(6)	44.11	7(7)
<b>Average of NE States</b>	<b>41.65</b>		<b>40</b>		<b>46.6</b>		<b>51.13</b>	
<b>14 Major States</b>								
1. Andhra Pradesh	26.99	15	18.86	17	21.21	14	38.55	10
2. Bihar	31.36	14	29.86	11	0.35	21	25.8	22
3. Gujarat	31.85	12	24.07	15	18.95	18	33.55	17
4. Haryana	21.83	21	15.54	22	20.3	15	30.79	19
5. Karnataka	24.29	18	17.69	20	21.97	13	37.92	12
6. Kerala	36.47	8	29.12	12	16.37	21	26.7	21
7. Madhya Pradesh	24.73	17	18.73	18	18.13	20	31.25	18
8. Maharashtra	39.19	5	34.07	6	30.16	11	35.07	15
9 Orissa	32.56	10	27.12	14	31.62	10	34.42	16
10 Punjab	31.78	13	32.28	8	33.35	9	38.88	9
11 Rajasthan	32.33	11	21.62	16	18.95	17	35.73	13
12 Tamil Nadu	18.79	22	18.4	19	20.3	15	35.14	14
13 Uttar Pradesh	23.89	19	17.28	21	21.97	12	38.2	11
14. West Bengal	37.86	6	27.99	13	18.74	19	27.2	20
<b>Average of 14 major states</b>	<b>29.65</b>		<b>23.75</b>		<b>20.88</b>		<b>33.51</b>	
<b>Average of all states</b>	<b>35.65</b>		<b>31.87</b>		<b>33.74</b>		<b>42.32</b>	

Notes: Rank in parenthesis presents rank among all NE States.

among NE states. During 2000-05, the performance of Arunachal Pradesh, Meghalaya, and Nagaland deteriorated and that of the other NE states improved. It would be worthy to note here that Mizoram achieved 1<sup>st</sup> rank and Manipur achieved 2<sup>nd</sup> rank among both NE states as well as among all states in this time period. The performance further deteriorated in the case of Arunachal Pradesh, Assam, and Sikkim, but states like Mizoram continued at 1<sup>st</sup> rank and Manipur continued at 2<sup>nd</sup> rank. So, it can easily be observed that from 1990 - 2010 the performance of Arunachal Pradesh was better in the initial years, but it deteriorated over time, but the performance of Mizoram improved continuously. Comparison of average fiscal performance value in context of NE states with the 14 major states shows that there is no significant difference in their performance.





**(2) Own Revenue Effort Index (OREI) :** Own revenue effort of state governments has been considered to be an important component of fiscal performance in the context of both deficit management as well as revenue and expenditure management. It is worth noticing that during 1990-95, the performance rank in terms of own revenue effort Arunachal Pradesh, Assam, Manipur, Sikkim, and Nagaland were ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup>, respectively among both NE states as well as all states (Table 3). Among all NE states, the performing state in terms of own revenue effort was Arunachal Pradesh and the worst performing state was Tripura. During 1995-00, when the performance of Arunachal Pradesh deteriorated significantly, there was significant improvement in the performance of Sikkim and Meghalaya. In the time period from 2005-10, Sikkim achieved the first rank, Assam 2<sup>nd</sup>, Manipur 3<sup>rd</sup>, Arunachal Pradesh 4<sup>th</sup>, Meghalaya 5<sup>th</sup>, Tripura 6<sup>th</sup>, Nagaland 7<sup>th</sup>, and Mizoram 8<sup>th</sup> among both NE states and all states. The average performance value comparison between NE and all states also indicates that the performance of NE states is better than the general category states.

**(3) Expenditure and Debt Servicing Index (EDSI) :** Expenditure and debt servicing is another important aspect of government's fiscal performance. Table 4 is the expenditure and debt servicing index which presents the performance of states in the context of expenditure and debt servicing. In this context, the best performing state during 1990-95 among all states as well as among the NE states was Arunachal Pradesh. Similarly, the second best performing state was Sikkim, and the third best performing state was Assam. Among all NE states, the worst performing state was Meghalaya. It would be worthy to note here that the performance of Arunachal Pradesh continued to be same over all the time periods up to 2005-10 standing at the first position. When Mizoram's performance improved from 4<sup>th</sup> position during 1990-95 to 2<sup>nd</sup> position during 2005-10, the performance of Sikkim deteriorated significantly. Performance of NE states is observed to be better than the performance of the 14 major states. However, the performance of NE states as a whole has deteriorated over the time.

**(4) Fiscal Performance Composite Index (FPCI) :** The Table 5 shows the Fiscal Performance Composite Index (FPCI) which presents the average of all the three indices. The index presents the overall fiscal performance of the states. It is observed from the Table that the best performing state is Arunachal Pradesh over all time periods among all states. Assam was the 2<sup>nd</sup> best performing state during 1990 to 2000, but it started deteriorating later and became the 4<sup>th</sup> best performing state. Unlike Assam, the performance of Mizoram improved to the 2<sup>nd</sup> best performing state by the time period 2005-10. The performance of Meghalaya and Tripura is observed to be deteriorating (Figure 1). It can be inferred that the performance of the NE states as a whole is better than the performance of 14 major states as a whole.

## Research and Policy Implications, Limitations of the Study, and Scope for Further Research

**(1) Research Implications and Policy Implications :** On the basis of composite fiscal performance index, which is an average summation of deficit indicator, own revenue effort, debt servicing, and expenditure management indices, it is observed that the overall fiscal performance of NE states is better than the performance of the general category states. However, the worrisome matter is increasing debt as a percentage of GSDP for NE states, which is decreasing for general category states.

At the policy level, there should be an initiative to increase own revenue receipts without creating bad debt. The North Eastern states should no more solely depend on the Central Government's transfers; rather, there should be initiatives to check unproductive expenditure and to increase productive expenditure by going for viable projects, which can improve their revenue generation capacity.

The above conclusion is almost similar to the observations made in recent studies such as Dash (2011), Dash and Tiwari (2011), and Dash and Rath (2016a). One common observation of these studies is that the non plan revenue expenditure is the major culprit of undisciplined fiscal situation of these states.

**(2) Limitations of the Study :** Since this study considered data from 1991 to 2010, the analysis is limited to these years. Apart from this, we mostly used compiled data and not disaggregated data from the root sources. Therefore, the accuracy of data at the root level interpretation may differ marginally.

**(3) Scope for Further Research :** This study has basically analyzed the fiscal performance of North Eastern states and has observed the relative position of NE states among fourteen major states and NE states. Though the study adopted appropriate methodology of research by developing a fiscal performance index, the same may be worked out with other methodologies. It can be further extended to more number of years. It is understood that each state has its own individual problems and constraints at the root level. There is scope for further research to recommend policy for micro-economic efficiency at the state level.

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