

## CONSOLIDATION OF FISCAL FRONT OF STATES IN INDIA

## V. V. S. Rama Krishna

Assistant Professor, Department of Economics, AU Campus, Kakinada

Voice of Research Vol. 2, Issue 4, March 2014 ISSN 2277-7733

#### **Abstract**

In this paper an attempt has been made to compare the receipts of Governments with a view to bring out the divergence in the mobilisation of resources by the States and the Central Government and expenditure incurred on development activities for the years 2010-11, 2011-12 (Revised Estimates) and 2012-13 (Budget Estimates). The fiscal position of states witnessed consolidation in terms of deficit indicators in 2010-11. The year 2011-12 (RE) recorded a marginal improvement in revenue surplus, while fiscal deficit was higher due to an increase in capital outlay. However, state governments are budgeted to further strengthen their fiscal position in 2012-13, which would be primarily contributed by higher surplus in their revenue accounts during the year. During 2012-13 (BE), most states expect to meet the deficit targets. The majority of the states shows an increase in their revenue surplus during 2012-13, thereby indicating that the quality of expenditure is not being compromised to achieve the deficit targets.

Keywords: Consolidation, Fiscal Front, Deficit Indicators

The Constitution of India clearly specifies the expenditure responsibilities as well as the resources, which are in the domain of the Union as well as the State Governments. In terms of the powers to raise resources, Union Government has a predominant position. Taxes on income both for individuals and corporate entities, union excise duties and tax on import and export of goods, service taxes, etc; are within the domain of the Union. Taxes on consumption are assigned to the States. Taxes on services, though meant for final consumption are levied by the Union. Recognising the asymmetry in the assignment of receipts and expenditure responsibilities, Constitution envisaged transfer of resources from the Union to the States. This structured revenue sharing arrangement not only attempts at vertical and horizontal equity; it also provides States with additional resources to meet their expenditure obligations.

In order to present a meaningful comparison, all the 28 States have been grouped into non-special category and special category States. A list of non special category States are Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. Special Category States are Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand.

## Methodology

The analysis of the expenditure data is disaggregated into development and non- development expenditure. All expenditure relating to revenue account, capital outlay and loans and advances are categorised into social services, economic services and general services. While social and economic services constitute development expenditure, expenditure on general services is treated as nondevelopment expenditure. Thus, the development expenditure includes the development components of revenue expenditure, capital outlay and loans and advances by the state governments. The 'overall deficit/surplus' used

in the analysis is equal to the sum of cash deficit/surplus (difference between the closing balance and opening balance), increase/ decrease in cash balance investment account. The outstanding liabilities for the state governments as at end-March 2011 are directly taken from Comptroller and Auditor General (CAG) of India's 'Combined Finance and Revenue Accounts of the Union and state governments in India'. The outstanding liabilities position for end-March 2012 and end-March 2013 have been derived by adding annual flows [2011-12(RE) and 2012- 13(BE)], to the outstanding amounts for end- March 2011 and end-March 2012, respectively.

#### **Deficit Indicators**

The fiscal consolidation process of the states, which had resumed in 2010-11 after a setback in 2008-09 and 2009-10, was somewhat hampered by a slowdown in economic activities in 2011-12. As a result, the consolidated gross ûscal deficit as a ratio to GDP, which had declined significantly in 2010-11, increased marginally in 2011-12 (RE), although revenue account at the consolidated level continued to remain in surplus. However, most states have indicated a reduction in their ûscal deficit-GSDP ratio during 2012-13 (BE) through generation of increased surplus in their revenue accounts, which is expected to improve their overall ûscal balance at the consolidated level (Tables 1).

Table 1 - Major Deficit Indicators of State Governments

(Rs. in billion)

Item	2004-08	2008-10	2010-11	2011-12	2012-13
				(RE)	(BE)
Gross Fiscal		1617.0	1614.6	2078.8	2157
Deficit	(2.3)	(2.7)	(4.1)	(2.3)	(2.1)
Revenue		91.7	-30.5	-60.9	-425.7
Deficit	(0.0)	(0.1)	(-0.0)	(-0.1)	(-0.4)
Primary Deficit		538.2	366.4	685.5	598.3
	(0.0)	(0.9)	(0.5)	(0.8)	(0.6)

BE: Budget Estimates. RE: Revised Estimates.

Note: 1. Negative (-) sign indicates surplus.

- 2. Figures in parentheses are percentages to GDP.
- 3. The ratios to GDP at current market prices are based on CSO's National Accounts 2004-05 series

Source: Budget Documents of the state governments.



## Fiscal Imbalances

Table 2 - Fiscal Imbalances in Non-Special and Special Category States

(Per cent to GSDP)

2004-	2008-	2010-	2011-	2012-
08	10	11	12 RE	13 BE
Avg.	Avg.			
0.2	0.3	0.1	0.1	-0.3
-2.8	-3.1	-2.3	-2.5	-2.7
0.0	0.1	0.0	-0.1	-0.4
2.7	3.1	2.5	2.7	2.5
3.1	3.6	2.9	4.5	3.1
2.3	2.7	2.1	2.3	2.1
0.0	1.0	0.6	0.9	0.7
-0.5	0.6	0.1	1.8	0.5
0.0	0.9	0.5	0.8	0.6
-2.5	-1.7	-1.8	-1.8	-2.1
-6.4	-6.0	-5.0	-5.1	-6.3
-2.3	-1.7	-1.7	-1.6	-1.9
	08 Avg. 0.2 -2.8 0.0 2.7 3.1 2.3 0.0 -0.5 0.0	08	08 10 11 Avg. Avg. 11 0.2 0.3 0.1 -2.8 -3.1 -2.3 0.0 0.1 0.0 2.7 3.1 2.5 3.1 3.6 2.9 2.3 2.7 2.1 0.0 1.0 0.6 -0.5 0.6 0.1 0.0 0.9 0.5 -2.5 -1.7 -1.8 -6.4 -6.0 -5.0	08 10 11 12 RE   Avg. Avg. 11 12 RE   0.2 0.3 0.1 0.1   -2.8 -3.1 -2.3 -2.5   0.0 0.1 0.0 -0.1   2.7 3.1 2.5 2.7   3.1 3.6 2.9 4.5   2.3 2.7 2.1 2.3   0.0 1.0 0.6 0.9   -0.5 0.6 0.1 1.8   0.0 0.9 0.5 0.8   -2.5 -1.7 -1.8 -1.8   -6.4 -6.0 -5.0 -5.1

<sup>\*:</sup> As a ratio to GDP. RE: Revised Estimates BE: Budget Estimates Source: Budget documents of the state governments.

Note: Negative (-) sign indicates surplus

Non-special category (NSC) states and special category (SC) states at the consolidated level witnessed improvement in their key deficit indicators during 2010-11. While revenue account recorded improvement across the majority of states, GFD-GSDP ratios were lower due to a decline in capital outlay. However, the fiscal imbalances of consolidated NSC and SC states widened in 2011-12 (RE) due to higher capital outlays across the majority of states. In 2012-13, finances of consolidated NSC and SC states are budgeted to improve due to an increase in revenue surpluses in the majority of states (Tables 2).

## Aggregate Receipts

Table 3 - Aggregate Receipts of State Governments

('Rs. in billion)

Item	2004-	2008-	2010-11	2011-12	2012-13
	08 Avg	10 Avg		RE	BE
Aggregate Receipts	6,496.6	9,494.6	11,735.7	14,259.4	16,333.0
(1+2)	(16.1)	(15.7)	(15.3)	(16.1)	(16.1)
Revenue Receipts	4,872.1	7,314.0	9,353.5	11,414.7	13,309.8
(a+b)	(11.9)	(12.1)	(12.2)	(12.9)	(13.1)
a.States' Own	2,921.1	4,279.2	5,523.6	6,578.5	7,649.7
Revenue	(7.2)	(7.1)	(7.2)	(7.4)	(7.5)
(i+ii)					
i. States' Own Tax	2,333.6	3,425.0	4,607.1	5,514.7	6,450.7
	(5.7)	(5.7)	(6.0)	(6.2)	(6.3)
ii. States' Own Non-	587.5	854.2	916.5	1,063.9	1,199.0
Tax	(1.4)	(1.4)	(1.2)	(1.2)	(1.2)
b. Current Transfers	1,951.0	3,034.8	3,829.9	4,836.1	5,660.1
(i+ii)	(4.7)	(5.0)	(5.0)	(5.5)	(5.6)
i. Shareable Taxes	1,110.7	1,630.3	2,194.9	2,597.3	3,021.9
	(2.7)	(2.7)	(2.9)	(2.9)	(3.0)
ii. Grants-in Aid	840.4	1,404.5	1,635.0	2,238.9	2,638.2
	(2.0)	(2.3)	(2.1)	(2.5)	(2.6)
2. Capital Receipts	1,624.5	2,180.7	2,382.3	2,844.7	3,023.3
(a+b)	(4.2)	(3.6)	(3.1)	(3.2)	(3.0)
a. Loans from	117.4	75.6	94.8	159.9	202.1
Centre@	(0.3)	(0.1)	(0.1)	(0.2)	(0.2)
b. Other Capital	1,507.1	2,105.1	2,287.5	2,684.9	2,821.1
Receipts	(3.9)	(3.5)	(3.0)	(3.0)	(2.8)

RE: Revised Estimates. BE: Budget Estimates.

1. Figures in parentheses are percentages to GDP.

2. Capital receipts include public accounts on a net basis.

Source: Budget Documents of the state governments.

On the receipts side, the average aggregate receipts-GDP ratio, which had moderated in the post global financial crisis period, has revived to its high growth phase level of 16.1 per cent during 2011-12 to 2012-13. A phase-wise analysis shows that the increase in the average of revenue receipts-GDP ratio of the states during the fiscal consolidation phase, i.e., 2004-08, was largely attributable to an increase in central transfers, although the states' own revenues also increased over the same period. During 2008-10, the average revenue receipts-GDP ratio further increased, with the increase in central transfers more than offsetting the decline in states' own revenues. During 2010-11 to 2012-13 (BE), the revenue receipts-GDP ratio shows a gradual increase on account of improvement in both states' own tax revenues (OTR) and central transfers. The states' OTR as a ratio to GDP has been steadily increasing from an average of 5.7 per cent during 2004-08 to 6.3 per cent in 2012-13 (BE) (Table 3).

# Expenditure Pattern

Table 4 - Expenditure Pattern of State Governments

(Rs. in billion)

Item	2004-	2008-	2010-11	2011-12	2012-13
	08 Avg	10 Avg		RE	BE
Aggregate	6,311.8	9,488.3	11,587.3	14,330.8	16,322.9
Expenditure	(15.7)	(15.7)	(15.1)	(16.2)	(16.1)
(1+2=3+4+5)					
1. Revenue	4,818.0	7,405.7	9,323.0	11,353.8	12,884.1
Expenditure	(11.9)	(12.2)	(12.1)	(12.8)	(12.7)
of which Interest	908.6	1,078.8	1,248.2	1,393.3	1,554.4
payments	(2.3)	(1.8)	(1.6)	(1.6)	(1.5)
<ol><li>Capital</li></ol>	1,493.8	2,082.6	2,264.3	2,977.1	3,438.8
Expenditure	(3.7)	(3.5)	(3.0)	(3.4)	(3.4)
of which capital	886.5	1,459.2	1,519.3	1,952.8	2,372.1
outlay	(2.2)	(2.4)	(2.0)	(2.2)	(2.3)
3.Development	3,682.9	6,024.1	7,203.5	9,208.8	10,332.4
Expenditure	(9.1)	(10.0)	(9.4)	(10.4)	(10.2)
4.Non-	2,050.7	2,812.6	3,572.9	4,132.9	4,792.9
Development	(5.1)	(4.6)	(4.7)	(4.7)	(4.7)
Expenditure					
Others*	578.2	651.6	810.9	989.2	1,197.8
	(1.5)	(1.1)	(1.1)	(1.1)	(1.2)

RE: Revised Estimates. BE: Budget Estimates. \*: Includes repayment of loans to Centre, discharge of internal debt, grants-in-aid and contributions (compensation and assignments to local bodies).

Note: 1. Averages provided in this table reflect the different fiscal phases of the States.

2. Figures in parentheses are percent to GDP. Source: Budget Documents of the state governments.

The average aggregate expenditure-GDP ratio during 2004-08 and 2008-10 was stagnant due to a sharp decline in revenue expenditure, even though there was an increase in the capital outlay. During the crisis years, i.e., 2008-10, the average aggregate expenditure-GDP ratio remained unchanged at 15.7 per cent as the increase in revenue expenditure was offset by a decline in capital expenditure. Although the aggregate expenditure-GDP ratio had declined in 2010-11, it increased by 1.1 percentage points in 2011-12 (RE), mainly on account of an increase in revenue expenditure. For 2012-13, the aggregate expenditure-GDP ratio is expected to be



marginally lower on account of a decline in revenue expenditure (Table 4).

## Actual Accounts Of 2010-11

After having implemented an expansionary ûscal policy to address the slowdown in 2008-09 and 2009-10, the challenge before the state governments was to revert to the fiscal consolidation path. The state governments had, in their budgets for 2010-11, proposed to carry forward their ûscal consolidation, in keeping with the recommendation of the FC-XIII. The focus was on expenditure control against the backdrop of the rollback of ûscal stimulus measures and the tapering off of the impact of the Sixth Pay Commission Award. In 2010-11, key deficit-GDP ratios declined over the previous year, primarily on account of a boost in revenues led by a strengthening of the growth momentum. Revenue account turned to a surplus position in 2010-11 from a deficit in 2009-10, supported by an increase in the revenue receipts-GDP ratio. The improvement in the revenue receipts-GDP ratio was entirely due to higher tax receipts from both states' own tax revenue and share in central taxes as ratios to GDP. On the expenditure front, the revenue expenditure-GDP ratio declined reflecting a lower development revenue expenditure-GDP ratio. A comparison of the accounts figures with the revised estimates for 2010-11 shows that there was a turnaround in the revenue account from deficit to surplus.

# Revised Estimates Of 2011-12

In terms of the consolidated position of the state governments for 2011-12 (RE), despite lower capital outlay-GDP ratio the fiscal deficit and primary deficit as ratios to GDP were higher than the budgeted levels. This was on account of lower revenue surplus at the consolidated level resulting from higher than budgeted revenue expenditure, which more than offset the increase in revenue receipts. Higher tax receipts from both states' OTR and tax devolution from the centre contributed to the higher revenue receipts in 2011-12 (RE). States' OTR in 2011-12 (RE) exceeded the budgeted level on account of higher collections from taxes on commodities. However, non-tax revenues were lower due to grants from the centre, although states' own non-tax revenues were higher in the revised estimates. In 2011-12 (RE), revenue receipts as a ratio to GSDP increased in 25 states over 2010-11 despite the moderation in economic growth. States' own revenues, as ratios to GSDP, increased in 24 and 17 states, respectively. During 2011-12, sharp increases in the prices of petroleum products helped boost states'

OTR, because revenue from VAT on petroleum products accounts for around one-third of the total VAT revenue. The share of VAT on petroleum products in total VAT revenue increased in 15 states; at the consolidated level this share increased to 31.3 per cent during 2011-12.

## Budget Estimates Of 2012-13:

Key Deficit Indicators: All the key deficit indicators of states at the consolidated level are budgeted to improve in 2012-13, indicative of the states' intent to carry forward fiscal consolidation as envisaged by FC-XIII. Higher growth in revenue receipts than in revenue expenditure during 2012-13 is expected to boost the revenue surplus of states at the consolidated level to 0.4 per cent of GDP. The improvement in the revenue account is expected to reduce GFD and PD by 0.2 percentage points of GDP each and would also provide resources for higher capital outlays. With the improvement in the revenue accounts of 22 states over 2011-12 (RE), 23 states have budgeted for revenue surplus in 2012-13. The GFD and PD as ratios to GSDP are budgeted to decline in 18 and 17 states, respectively, in 2012-13.

Revenue Receipts: Revenue receipts as a ratio to GDP are placed higher in 2012-13 (BE), with states' OTR budgeted to contribute around 50 per cent of the increase in revenue receipts. States' own non-tax revenues are also budgeted to increase in 2012- 13; while non-tax revenue from 'education, sports, art and culture' is estimated to increase, lower revenues are expected from 'interest receipts' and 'dividend and profits' in 2012-13. Current transfers from the central government in the form of tax devolution and grants are also budgeted to increase in 2012-13. Revenue receipts-GSDP ratios are expected to increase in 16 states during 2012-13 (BE). Within revenue receipts, states' own revenues, viz., OTR and ONTR as ratios to GSDP, are budgeted to increase in 20 and 11 states, respectively, in 2012-13. Current transfers in the form of tax devolution and grants as a ratio to GSDP are also budgeted to increase in 19 states and 15 states, respectively.

## Expenditure Pattern

Revenue Expenditure: During 2012-13, the consolidated RE-GDP ratio is budgeted to decline by 0.1 percentage points due to lower growth in the development component (both social and economic services). Within social services, revenue expenditure on 'water supply & sanitation' and 'expenditure on natural calamities' is budgeted to decline in 2012- 13. Among economic services, 'irrigation & flood control',



'rural development' and 'transport and communication' are budgeted to grow at a slower pace during 2012-13. Despite a deceleration in the growth of interest payments and administrative services, the growth in non-development revenue expenditure is budgeted to increase in 2012-13, mainly due to higher growth of pension expenditure. However, committed expenditure as a ratio of revenue receipts, which had declined by 2.0 percentage points to 31.0 per cent in 2011-12 (RE), is budgeted to decline further to 30.6 per cent in 2012-13. During 2010-11 to 2012-13 (BE), the committed expenditure of all states and NSC states at the consolidated level has remained stable at 4.0 per cent of GDP and 4.5 per cent of GSDP, respectively. However, the committed expenditure of SC states at the consolidated level, which had increased during 2011-12 (RE), is budgeted to decline during 2012-13. Capital Expenditure: Growth in capital expenditure is budgeted to decelerate during 2012-13, which reflects the slower pace of expansion in capital outlay. Development capital outlay on economic services, which accounts for around 68.0 per cent of the total capital outlay, is budgeted to grow at a lower rate in 2012-13 than in 2011-12 (RE). Capital outlay on 'energy' is budgeted to decline over the same period. Non-development capital outlay is also budgeted to decelerate during 2012-13. Despite the deceleration in its growth rate, capital outlay as a ratio to GDP at the consolidated level is placed marginally higher at 2.3 per cent in 2012- 13 (BE). State-wise capital outlays as ratios to GSDP are budgeted to increase in 17 states in 2012-13. The budgeted decline in loans and advances by the states is attributable to a decline in loans for economic services, viz., 'rural development' and 'power' and a sharp deceleration in the nondevelopment component.

Development Expenditure: Development expenditure remains the largest component of aggregate expenditure, although its share in aggregate expenditure shows a marginal decline to 63.3 per cent in 2012-13 (BE). The share of development revenue expenditure in aggregate expenditure is budgeted to decline in 2012-13. However, developmental capital outlay as a ratio to total expenditure is budgeted to record an increase of 0.7 percentage points in 2012-13, which is attributable to higher outlays in the 'major and medium irrigation and flood control' and 'transport' sectors. The share of loans and advances for development purposes is also budgeted to decline during 2012-13 due to a sharp decline in loans to 'power projects'. In 2012-13, development expenditure-GSDP ratios are

budgeted to decline in 17 states, while the consolidated development expenditure-GDP ratio is budgeted lower at 10.2 per cent. Among NSC states, the development expenditure-GSDP ratio remained higher than the average in 10 of the 17 NSC states. The improvement seen in select states, viz., Bihar, Chhattisgarh, Jharkhand and Madhya Pradesh, in recent years is noteworthy.

#### Assessment

Revenue Deficit And Gross Fiscal Deficit: Key deficit indicators of the state governments at the consolidated level are budgeted to improve during 2012-13. The consolidated revenue surplus is budgeted to increase by 0.3 percentage points of GDP during 2012-13, with 22 of the 28 states expected to record improvement in their revenue account. Of these, one state is expected to show a turnaround in its revenue account from deficit to surplus, while the revenue surpluses of 16 states are budgeted to rise and the revenue deficits of five states would moderate in 2012-13. In line with an improvement in the revenue account, the consolidated GFD-GDP ratio is budgeted to be lower in 2012-13, despite an increase in the CO-GDP ratio. Fiscal deficit in absolute terms is budgeted to decline in 14 states, while the GFD-GSDP ratio is placed lower in 18 States during 2012-13. The consolidated capital outlay (CO)-GDP ratio is budgeted to increase during 2012-13, with an increase in this ratio being noticed in 17 states.

Budgetary Variations: State Budget Vs Union Budget: Variations in the common items as presented in the state budgets and the Union budget continued in 2012-13. In 2010-11 and 2011-12, states overestimated the grants and loans they receive from the centre, but underestimated their share in central taxes. However, for 2012-13 states have overestimated all the items as compared with the Union Budget. Any shortfall in the current transfers from the centre could reduce the consolidated revenue surplus of the states.

Performance of States Vis-à-vis Projections of The Fc-xiii: FC-XIII had chalked out a fiscal consolidation path for states, stipulating that states achieve revenue balance and a fiscal deficit-GSDP ratio of 3.0 per cent by 2014-15. FC-XIII had also made a state-wise assessment of own receipts and select expenditures for each of the years in the award period of 2010-15. Although the own tax revenue-GSDP ratio of the states at the consolidated level was increasing during the period 2010-11 to 2012-13. Within revenue expenditure, states were placed better in the case of expenditure on interest payments as a ratio to GSDP compared with the limit stipulated by the FC-XIII,



while the pension-GSDP ratio has remained higher than the FC-III limit during 2010-11 to 2012-13.

A comparison of states' revenue deficit and fiscal deficit in terms of GSDP with the targets of FC-XIII reveals that the performance of all states, NSC and SC states at the consolidated level in respect of the revenue deficit-GSDP ratio was better than the FC-XIII's targets in 2011-12. State-wise data shows that with the exception of Goa, Haryana, Kerala, Maharashtra, Punjab and West Bengal, the rest of the states performed better than their respective FC-XIII targets. The fiscal deficit-GSDP ratio of all states and NSC states at the consolidated level was lower than the FC-XIII target; however, the same was higher than the FC-XIII target for SC states at consolidated level. The revenue account position of all states, NSC states and SC states at the consolidated level is budgeted to be better than the FC-XIII target for 2012-13, while the revenue deficit-GSDP ratios of Goa and Haryana are higher than the FC- XIII target for the year. The GFD-GSDP ratio of all states, NSC states and SC states at the consolidated level is budgeted to be lower than the FC-XIII target in 2012-13. At the state level, GFD -GSDP ratio is expected to exceed the FC- XIII targets in 2012-13 (BE) for Goa among the NSC states and Arunachal Pradesh and Manipur among SC states.

#### Conclusion

Key deficit-GDP ratios recorded improvement in 2010-11 (Accounts) over the previous year, as well as over the revised estimates for the year. Fiscal imbalances in terms of GFD- GDP and PD-GDP ratios at the consolidated level, however, widened during 2011-12 (RE), even though these were due to an increase in capital outlay during the year. State-wise data shows improvement in the revenue account of the majority of the states in 2011-12(RE). Most of the states witnessed higher receipts from central transfers and own tax revenues in 2011-12 (RE). Within own tax revenues, taxes on petroleum products, which account for around one-third of the total revenue from VAT, increased in 15 states during 2011-12 (RE). The increase in revenue surplus, generated primarily through increase in revenue receipts, is expected to provide more resources for capital investment. The analysis revealed that the fiscal position of states witnessed consolidation in terms of deficit indicators in 2010-11. The year 2011-12 (RE) recorded a marginal improvement in revenue surplus, while fiscal deficit was higher due to an increase in capital outlay. However, state governments are budgeted to further strengthen their fiscal position in 2012-13, which would be primarily contributed by higher surplus in their revenue accounts during the year. A comparison with the Thirteenth Finance Commission's (FC-XIII) targets for deficits indicates that the states have by and large achieved the envisaged revenue balance in 2011-12, but the GFD-GSDP target was not met by 12 states. During 2012-13 (BE), most states expect to meet both the deficit targets. The majority of the states budgeted a higher capital outlay and also shows an increase in their revenue surplus during 2012-13, thereby indicating that the quality of expenditure is not being compromised to achieve the deficit targets.

#### References

- Buiter, Willem H. and Urjit R. Patel (2010), Fiscal Rules in India: Are they effective, Working Paper 15934, National Bureau of Economic Research, April.
- Canuto, O and L. Liu (2010), Sub national Debt Finance: Make it Sustainable, Sub national Debt Finance and the Global Financial Crisis, World Bank Economic Premise Note, No. 13, Washington, DC.
- Chalk, Nigel and R. Hemming (2000), Assessing Fiscal Sustainability in Theory and Practice IMF Working Paper, WP /00/81 Washington DC, April.
- Dholakia, Ravindra H. and N. Karan (2004), Consistent Measurement of Fiscal Deficit and Debt of States in India, Working Paper WP 2004-07-05, Indian Institute of Management, Ahmedabad, July
- Government of India (2009), Report of the Thirteenth Finance Commission, New Delhi
- Quintanilla, J. C. (2009), Public Finance Sustainability in Sub national Governments, Publication No. 12, Debt Relief International, London, November
- Rangarajan, C. and Abha Prasad (2012), Managing State Debt and Ensuring Solvency- The Indian Experience, WPS6039, Policy Research Working Paper, The World Bank, Economic Policy and Debt Department, April.
- Schaechter, A., Tidiane Kinda, Nina Budina, and Anke Weber (2012), Fiscal Rules in Response to the Crisis-Toward the Next-Generation Rules. A New Dataset, WP/12/187, IMF Working Paper, Fiscal Affairs Department
- Simone, A. S. and P. Topalova (2009), India's Experience with Fiscal Rules: An Evaluation and The Way Forward, IMF Working Paper, WP/09/ 175, Asia and Pacific Department.