

Tax effort of Indian States: What explains the underperformance of West Bengal?

Jayanta K. Dwivedi

BKC College, Kolkata

Tushar K. Nandi

CSSSC

Evaluation of state finance: Some observations

- West Bengal ranked 17th among 17 General Category States (GCS) in terms of FPI (Composite index)
- Poor ranking in all individual indicators
- Maintaining its position for the entire period (2002-03 to 2011-12)

Evaluation of state finance: Some observations

What are the factors behind dismal state of government finance of West Bengal ?

Analysis of Expenditure Pattern

- No over spending at least with respect to the size of the economy (RE/GSDP)

Analysis of Revenue Profile

- Central Transfers (Tax share and Grants in aid): Mostly formula based.

Evaluation of state finance: Some observations

CFC Transfers: Contribution Vs Share

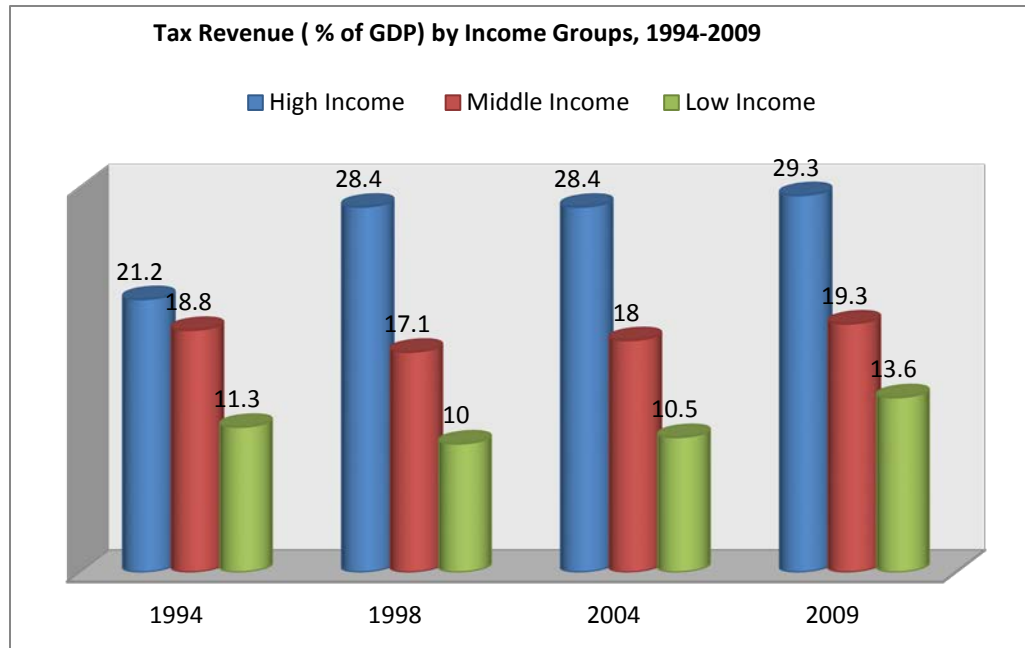
State	Contribution (%)	Tax share (%)	CT/GSDP (2011-12)	OR/GSDP (2011-12)
Andhra Pradesh	8.9	7.2	4.8%	10.0%
Bihar	2.2	11.0	17.2%	5.6%
Gujarat	7.9	3.4	2.5%	7.7%
Karnataka	6.4	4.4	4.2%	10.6%
Kerala	4.3	2.5	3.3%	9.3%
Madhya Pradesh	4.1	6.9	9.9%	10.6%
Maharashtra	16.2	5.1	2.3%	7.7%
Odisha	3.0	5.0	10.1%	8.5%
Punjab	3.6	1.3	2.7%	9.3%
Rajasthan	4.8	5.7	5.6%	7.9%
Tamil Nadu	8.6	5.2	3.1%	10.3%
Uttar Pradesh	9.4	19.5	10.7%	9.4%
West Bengal	7.3	7.1	5.8%	5.1%

Own Tax Revenue Effort

- The actual tax collection-to-gross domestic product (GDP) ratio is generally interpreted as a measure of tax effort and used as the basis for cross country tax comparison.
- A positive relationship between tax to GDP and per capita income.
 - Tax structures are progressive.
 - Demand for government services is income–elastic, so the share of goods and services provided by the government is expected to rise with income.
- The tax-to-GDP ratio could provide a “completely distorted” picture due to different economic structures, institutional arrangements and demographic trends.

Own Tax Revenue Effort.....

Tax effort by Income Groups (cross country), 1994-2009



- **OTR/GSDP** is generally interpreted as a measure of tax effort and used as the basis for cross state tax comparison. CFCs and others (in case of devolutions) also used this index to capture fiscal prudence of states.

What Explains Tax Effort of Indian States?

Estimation of taxable capacity and tax effort: Regression analysis using panel data(17 GCS ; 11 years).....

$$OTRS = \alpha + \beta_1 PCI + \beta_2 SECTGSDP + \varepsilon$$

- ***Taxable capacity***- Predicted tax revenue that can be estimated with the regression
- ***Tax efforts***- The ratio between actual tax collection and the predicted taxable capacity.
 - A value **>1** indicates **High Tax Effort**
- **Low collection does not necessarily imply low effort**

Tax Effort of Indian States.....

Summary results: panel data estimation.....

➤ PCI : Positive and significant

➤ SECTGSDP : Insignificant

R-sq: within = 0.12

between = 0.11

overall = 0.11

West Bengal's Tax-GSDP at 67% of its Potential

Consumption Pattern and Tax collection.....

Consumption and tax collection?

- 85-90% of state's own tax collection are taxes on commodities and services(80 % of that from VAT)
- Being indirect in nature they are expected to be more closely related to consumption than income.

Consumption Pattern and Tax collection.....

- Consumption can be divided into **hard to tax** consumption (mainly **food** consumption) and **easy to tax** consumption.

$$y = C + S$$

$$T = t \cdot (y - S - C_{NT})$$

$$\frac{T}{y} = t - t \cdot \frac{S}{y} - t \cdot \frac{C_{NT}}{y}$$

Consumption Pattern and Tax collection.....

Taxable capacity and tax effort: Regression analysis using panel data(17 GCS ; 7 NSSO consumption rounds).....

TCS(Taxable consumption share): Positive and significant

R-sq: Within = 0.1536

Between = 0.6718

Overall = 0.5993

West Bengal's Tax-GSDP at 72% of its Potential

Consumption Behaviour and Tax Collection?

Size of the economy and consumption/use of some important commodities

	WB	AP	Rajasthan	Chhattisgarh	Odisha
GSDP current price (2011-12) (in Rs crore)	538209	662592	416755	139515	215900
Per capita income (current price) (2011-12)	55222	68970	53735	46743	41896
Per capita sale of petro products (in kg. 2011-12)	64.9	124.5	126.3	77.5	79.9
No. of registered vehicles (in Lakh) (2010-11)	32.6	101.9	79.9	27.7	33.4
Per capita electricity consumption (Kwh) (2008-09)	442.5	928.2	747.1	1417.6	775.2

What's behind West Bengal's Dismal State of State Finance?

Informalisation and therefore underreporting?

How to capture this?

Thank You !