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STATE FISCAL CAPACITY AND TAX EFFORT: EVIDENCE FOR INDIAN STATES

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Abstract

The paper seeks to measure the internal fiscal capacity or the potential to create 'space' in the seventeen non-special category States of India through a tax effort analysis for Own Tax Revenues over the period 2005-06 to 2009-10. Estimates indicate a high tax effort index for the middle and lower income States while the high income States exhibit a low tax effort. Consequently, the scope to augment revenues for the middle and lower income States is limited whereas the high income States enjoy a greater latitude for revenue augmentation particularly in Sales Tax.

Keywords: Fiscal Capacity, Tax Effort

JEL Code(s): H6

State Fiscal Capacity and Tax Effort: Evidence for Indian States

I. Introduction

India, since Independence, has been a *de jure* federal system comprising of the Centre and the State (sub-national) governments. The 73rd and 74th constitutional amendments in 1992 transformed the Indian federation into a three-tier structure of Centre, States and local governments comprising of urban and rural local bodies. The seventh schedule of the Constitution defines the legislative, executive, judicial and fiscal domains of the Centre and States governments through the Union, State and Concurrent lists. The Centre can override the States on the concurrent list and residuary power is also assigned to the Centre. The resultant outcome is a powerful central government and built-in vertical imbalances between the Centre and the States. A distinguishing feature of the Indian federation is the multiple channels for inter-governmental resource transfers viz. the Finance Commission, Planning Commission and centrally-sponsored schemes from different central ministries. Federal fiscal relations in India have resulted in considerable vertical fiscal imbalance because of the advantages the Centre enjoys in raising resources while considerable expenditure responsibilities are with the States (Rao, 2005). For instance, in 2008-09 State governments could raise 55.57% of total current revenues as States' own revenues (approx 44.43% of their current revenues came from the Centre) while they could finance only 56.39% of their current expenditures from their own current revenues. State governments, consequently, face the challenge of creating fiscal space to finance the much needed social and physical infrastructure. The paper seeks to analyze the internal fiscal capacity or the potential to create 'space' in the seventeen non-special category States through a tax effort analysis. The seventeen non-special category States considered in the paper together account for nearly 95 percent of the total population, enjoy similar fiscal arrangements under the Constitution and traverse the space of high, middle and low income States.

Though the term "fiscal space" is recent, the concept has traditionally been at the heart of normative public finance as governments and policy makers have always strived to create additional budgetary room to finance higher levels of expenditure. Several definitions of 'fiscal space' co-exist. Peter Heller (2005) defines fiscal space as *'the availability of budgetary room (space) that allows a government to provide resources for a desired*

purpose without any prejudice to the sustainability of a government's financial position'. Alternatively, fiscal space can also be looked upon as *'the gap between the current level of expenditure and the maximum level of expenditure that a government can undertake without impairing its solvency'* (IMF-World Bank, 2006). It is pertinent to note that inherent to the definition of fiscal space is an explicit link with the concept of fiscal sustainability. Consequently, the creation and exploitation of fiscal space to finance higher expenditures in the current time period must be assessed alongside a similar need to create such space in the future. (Heller, 2005; IMF-World Bank, 2006). Roy et.al (2009, p.32) note that *both* (of the above) *definitions conceptualize fiscal space in residual terms (room or gap)*. Roy and Heuty (2009) provide a pro-active conceptualization of fiscal space, viz. *'concrete policy actions for enhancing domestic resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective'*. The emphasis on domestic resource mobilization in the definition also leads to the idea of fiscal sustainability that, in the long run, public expenditures need to be financed by domestically available resources created through an enabling political and economic environment. In the short run, though, these expenditures can be financed by grants or foreign aid. Another crucial difference between the Heller (2005), IMF-World Bank (2006) and Roy et.al (2009) definitions are that the former tend to focus on the short-term consequences and the potential adverse effect of an increase in public expenditure while the later is concerned with securing long term human development and economic growth and hence seeks to evaluate the effect of concrete policy actions of domestic resource mobilization for pro-poor public investments. The Roy and Heuty conceptualization, thus, focuses on the developmental rather than fiduciary implications of increasing fiscal space (Roy et.al, 2009).

Fiscal space diamonds are a diagnostic tool for mapping the government's policy options in securing the necessary fiscal space. Fiscal space is conventionally created through either or a combination of the following policy options: (i) reprioritizing expenditure along with improving the efficiency of public expenditure; (ii) improving domestic revenue mobilization; (iii) securing grants; and (iv) resort to additional borrowing. The more conservative approach, however, would be to create fiscal space within the existing

parameters and without resorting to additional borrowing. Alternative approaches to creating fiscal space would be through monetary expansion, through a reduction in the losses of State enterprises, through asset sales and privatization of State enterprises and public-private partnerships which can enlarge the space for investment (Heller, 2005, Roy et.al, 2009).

II. Fiscal Space and India: State Level

Fiscal space or additional budgetary room at the State level can be created either by enhancing States' own revenues which would reflect internal fiscal capacity, through transfers from the Centre, through additional borrowing and by reprioritizing expenditure along with improving the efficiency of public expenditure by trying to reduce administrative expenditure, non-development expenditure and growing pension liabilities. For instance, committed expenditure (comprising interest payments, administrative services and pensions) of States has shown a marginal decline from an average of 5 percent of GDP over 2000-05 to 4.3 percent of GDP in 2006-10. More specifically expenditure on wages and salaries as a percentage of GDP has declined from an average of 3.86 percent in 2000-05 to 2.74 percent of GSP in 2006-10. Likewise, non-development expenditure of States has also declined from 34.6 percent of total expenditure in 2000-05 to 31.34 percent over 2006-10. Besides, States have also focused on revenue augmentation through broadening and rationalizing their tax systems, improving the efficiency of their tax administration, simplification of their tax laws and a focus on better compliance. States' Own Tax Revenues (OTR) as a ratio of the Gross State Domestic Product (GSDP) increased from 5.5 percent during 2001-05 to 5.84 percent in 2006-10.

Further, in India, the policy option of borrowings as an avenue to create fiscal space at the State level is highly constrained as States cannot raise a loan without the consent of the Central government and market borrowing programs of State governments are finalized by the Government of India and the Planning Commission under Article 292(3) of the Constitution of India. Further, experiences of some States has revealed that States which have had difficulties in honoring their commitments under guarantees have failed

to get adequate market response leading thereby to the concomitant issue of reputational risk (Reddy, 2002).

The Debt Swap Scheme (2002-05) and the Debt Consolidation and Relief Facility (DCRF) recommended by the Twelfth Finance Commission have helped create fiscal space at the State level by reducing the expenditure on interest payments (reducing the cost of borrowing). Further, in recent years, some States have resorted to one-off asset sales of land and property to create fiscal space (Andhra Pradesh and Karnataka), while some States created earmarked fiscal space through Special Purpose Vehicles (Karnataka, Gujarat, Assam, Punjab, Uttarakhand). However, it is imperative that States undertake a proper assessment of the returns expected from such projects so as to avoid a burden on their budgets in the future (Reddy, 2002). Governments have also resorted to public-private partnerships to finance infrastructure development. Such public-private partnerships have allowed State governments to access private funds to finance public projects in a non-debt creating manner (Reserve Bank of India, 2008). In a federal structure, inter-governmental transfers can be crucial for creating space at the State level. Grants as a percentage of current revenues declined from 19.02 percent in 1990-91 to 16.04 percent in 2000-01 on account of fiscal consolidation measures at the Centre but have since risen and are at 20.9 percent of current revenues in 2008-09. Chakraborty et.al (2009) have examined the impact of financial deregulation, especially the de-regulation of interest rates post 1991, and the decline in central transfers on the fiscal space of the States for the period 1980-81 to 2002-03 and find that own tax revenues and transfers have an expansionary impact on total expenditures. We find that fiscal space at the State level is shrinking and can be attributed to the fiscal reforms at the Centre which have resulted in a sharp decline in vertical transfers to States accompanied by financial sector reform which has increased the cost of borrowing of State governments.

III. Methodology

Tax performance for any level of government or across government units at a particular level is usually assessed by the ratio of actual performance to a measure of taxable capacity such as the tax-GSDP ratio. Apart from being a simple indicator of performance, the criticism against a prescriptive ratio such as the tax-GDP ratio is of GDP being an

imperfect proxy for the tax base particularly when the tax structure comprises of different taxes each of which may relate to a distinct tax base. Consequently, estimation of tax effort would require the use of better proxies of the tax base and estimation procedures different from the simple prescriptive ratio. The literature takes us to two approaches on the disaggregated estimates of tax effort – the Representative Tax System (RTS) and the multiple regression approach.

The RTS, popular in the United States and Canada, *'links major state and local tax collections to their ideal or standardized bases and calculates what revenue each state could generate from these ideal bases if the nationally representative rate were levied'* (Mikesell, 2007) while in the multiple regression approach aggregate tax revenue or individual tax collections are explained by a set of regressors representing the tax base capacity and the difference between the predicted value and the actual value would reflect the 'tax effort' and the consequent ability to create fiscal space.

Given the large data requirement under the RTS, the paper adopts the regression approach to estimate tax effort. We adapt the framework of Sen (1997) and estimate separate regressions for each tax/tax group. The basis for the creation of a tax group, such as the Motor Vehicle Tax, may be attributed to the degree of interchangeability of taxes within the group and the identical proxy of the tax base. Accordingly, tax effort is computed on a disaggregated basis for the following major taxes at the State level.

- (i) Land Revenue (ii) Stamp Duty and Registration Fees (iii) State Sales tax
- (iv) Excise (v) Motor Vehicle Tax: Taxes on Vehicles and Taxes on Goods and Passengers

The following equations encapsulate the tax effort analysis for each of the taxes:

$$LR = f(PGSDP) \tag{1}$$

$$STAMPS = f(REALCON, URBAN, POPUDEN) \tag{2}$$

$$ST = f(MANU, APCE) \tag{3}$$

$$EX = f(PCSDP) \tag{4}$$

$$MVT = f(TSDP, REGVEH) \tag{5}$$

The rationale for the choice of regressors is to reflect the appropriate tax base based on theoretical underpinnings and the data availability. Under taxes that can be levied on agriculture, the paper considers land revenue (LR) alone and excludes from its purview agricultural income tax as this tax is levied by just three of the seventeen non-special category States viz. Karnataka, Kerala and West Bengal. Land Revenue is assumed to be a function of the primary sector State Domestic Product (PSDP). In the case of Stamps and Registration Fees, (STAMPS), a substantial portion of the revenue collection is from Stamp Duty and hence it was felt that the appropriate proxy of the tax base for this tax could be the sectoral share of the State Domestic Product (SDP) from Construction and Real Estate, Ownership of Dwellings and Business Services (REALCON) along with variables for urbanization (URBAN) and population density (POPUDEN). Revenues from State Sales tax, (ST), contribute a significant percentage (more than half) of the own tax revenue in the States and as the tax is an indirect tax levied on the consumption of goods when there is a sale or transfer of goods to the consumer, indirect proxies for the tax base are the sectoral share of manufacturing SDP (MANU) along with annual per capita household consumption expenditure (APCE) for rural and urban areas. State Excise Duty (EX) collections are proxied by per capita SDP (PCSDP) though a better proxy could be the consumption of different varieties of liquor, data on which is difficult to collate. The tax group on Motor Vehicles Tax (MVT) includes Taxes on Vehicles and Taxes on Goods and Passengers and the tax base is represented by the sectoral share of SDP from the transport sector (excluding railways) (TSDP) and the number of registered motor vehicles in a State (REGVEH).

IV. Empirical Evidence

The paper seeks to address the question of space for the seventeen non-special category States through a tax effort analysis which in turn can help assess the fiscal slack in own revenues at the State level for the period 2005-06 to 2009-10. Table 1 compares the average OTR/GSDP ratio for the seventeen non-special category States for the periods 2000-01 to 2004-05 and 2005-06 to 2009-10. Although the average OTR/GSDP ratio for the seventeen non-special category States together has shown an increase from 6.85 percent to 7.52 percent during 2005-06 to 2009-10, it is worth noting that nearly nine of

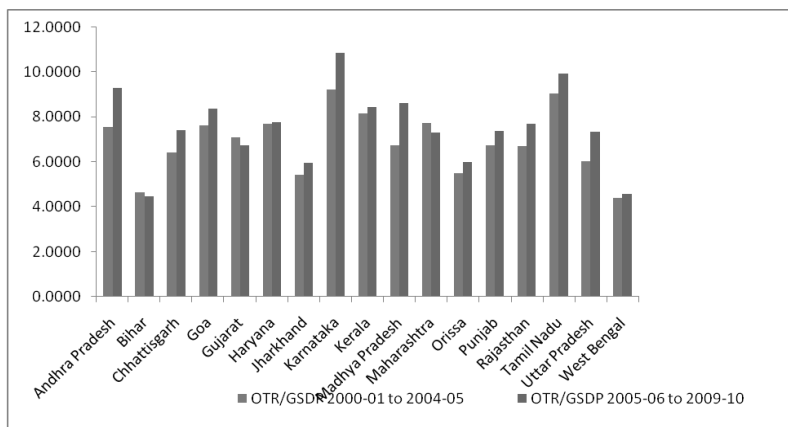
the seventeen States have an OTR/GSDP ratio lower than the average during 2005-06 to 2009-10.

Table 1 Own Tax Revenue as a ratio of Gross State Domestic Product

States	2000-01 to 2004-05	2005-06 to 2009-10
Andhra Pradesh	7.55	9.26
Bihar	4.64	4.46
Chhattisgarh	6.39	7.39
Goa	7.61	8.36
Gujarat	7.08	6.73
Haryana	7.68	7.75
Jharkhand	5.42	5.94
Karnataka	9.21	10.82
Kerala	8.13	8.42
Madhya Pradesh	6.72	8.61
Maharashtra	7.71	7.29
Orissa	5.48	6.00
Punjab	6.74	7.37
Rajasthan	6.69	7.67
Tamil Nadu	9.01	9.90
Uttar Pradesh	6.01	7.33
West Bengal	4.40	4.58
Average	6.85	7.52

Figure 1 reveals a high OTR/GSDP ratio in the three Southern States – Andhra Pradesh, Karnataka and Tamil Nadu. Further, the ratio is higher during the period 2005-06 to 2009-10 except for Bihar and Gujarat which show lower revenues during 2006-10.

Figure 1 Own Tax Revenue (OTR) as a percentage of Gross State Domestic Product



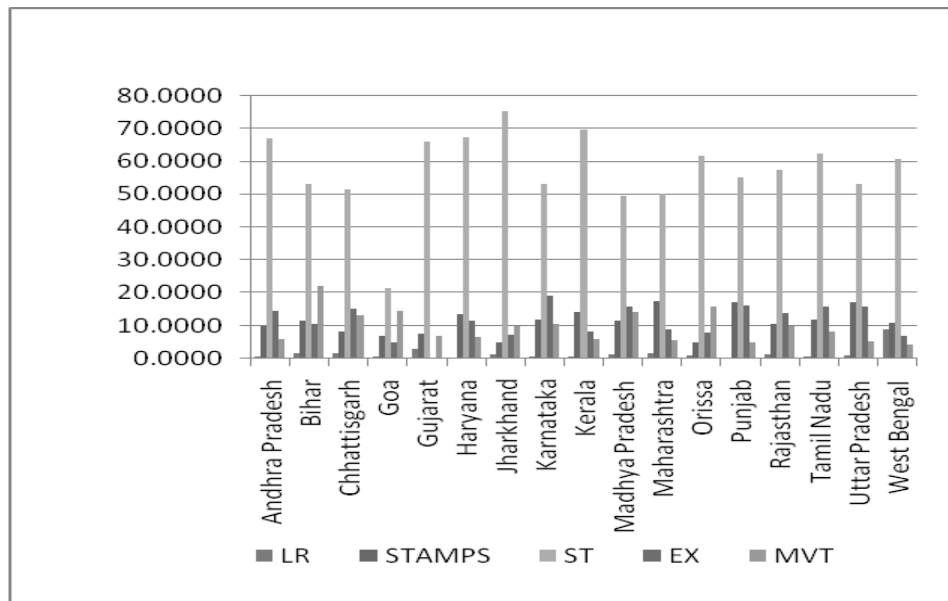
A major feature of the tax system at the State level in India is the dominance of taxes on commodities and services within which three major taxes – State Sales tax, State Excise and taxes on transport (Taxes on Vehicles and Taxes on Goods and Passengers) together contribute to nearly 78 percent of the overall Own Tax Revenue of the States. As can be observed from Table 2 and Figure 2, among the indirect taxes the largest contribution is from State Sales Tax of over 57 percent of OTR on an average and ranges between 49.52 percent for Madhya Pradesh to 74 percent in Jharkhand. The other major contributors to State OTR are State excise duty on alcoholic beverages (11.26 percent), stamp duty and registration fees (11.18 percent) and taxes on vehicles, goods and passengers (9.62 percent). Though land revenue though contributes just over one percent of the OTR, it has been considered as it comes under the purview of the agricultural sector and is imposed by all the non-special category States as against agricultural income tax whose levy is not widespread. The notable exception is West Bengal - 8.62 percent of its OTR from Land Revenue.

Table 2 Revenues from Major Tax Heads as a Ratio of Own Tax Revenue: 2005-06 to 2009-10

States	LR	STAMPS	ST	EX	MVT
Andhra Pradesh	0.41	9.87	66.73	14.31	5.92
Bihar	1.40	11.62	53.09	10.53	22.15
Chhattisgarh	1.41	8.14	51.37	15.08	13.02
Goa	0.45	7.04	21.50	4.92	14.59
Gujarat	2.78	7.70	65.70	0.22	6.96
Haryana	0.10	13.53	67.20	11.50	6.59
Jharkhand	1.03	5.08	74.93	7.05	9.89
Karnataka	0.55	11.98	53.12	19.11	10.49
Kerala	0.35	14.02	69.37	8.21	5.83
Madhya Pradesh	1.06	11.43	49.52	15.69	14.09
Maharashtra	1.30	17.29	50.15	8.63	5.62
Orissa	0.88	4.84	61.49	7.91	15.71
Punjab	0.16	17.08	54.86	16.08	4.83
Rajasthan	1.13	10.65	57.18	13.87	9.99
Tamil Nadu	0.38	11.97	62.14	15.73	8.38
Uttar Pradesh	0.80	17.15	53.11	15.61	5.12
West Bengal	8.62	10.70	60.63	6.98	4.27
Average	1.34	11.18	57.18	11.26	9.62

Table 2 further points out that 13 of the 17 non-special category States generate lower than average land revenue. As regards the other major revenue heads considered under OTR viz. Stamp duty and Registration Fees, Sales tax, Excise and Motor Vehicle tax approximately 7-8 States show a revenue performance lower than the average for the group of the seventeen non-special category States. The low excise revenue in Gujarat may be attributed to the prevalent policy of prohibition.

Figure 2 Major Taxes as a percentage of Own Tax Revenue 2005-06 to 2009-10



The tax effort analysis for each of the States is computed using the framework outlined in Section III for the period 2005-06 to 2009-10(BE) for the group of seventeen non-special category States and the results are in Table 3 in the log variant with a suffix ‘L’. The regressors in equations (1) to (5) reflect the actual/proxy tax base for the different taxes.

The estimates for excise exclude Gujarat given the State’s policy of prohibition while lack of data availability on household consumption expenditure excludes Goa for Sales tax. Further, the estimate for Stamp Duty and Registration Fees reveals that the sectoral share of Construction and Real Estate, Ownership of Dwellings and Business Services is significant while population density and urbanization do not have a significant impact on collections from Stamp Duty and Registration Fees. The significance of the regressors lends credence to the appropriate relationship between actual/proxy tax base and the tax revenue from the tax.

Table 3 Estimates for Taxes under Own Tax Revenue: Panel Data

LLR	-5.04 [#] (-2.39)	0.93LPSDP [#] (4.56)			F-Stat 20.79
LSTA	-1.45	0.71LREALCON [#]	0.03URBAN	0.0005POPDEN	F-Stat
MPS	(-1.18)	(3.29)	(0.63)	(0.15)	22.93
LST ¹	-3.82 (-3.74)	0.77LMANU [#] (4.06)	0.49LAPCE*		F-Stat 26.55
LEX ²	-5.05 [#] (-6.19)	1.18LPCSDP [#] (14.95)			F-Stat 23.38
LMVT	2.49 [#] (2.71)	0.47LTSDP [#] (4.00)	0.000053RVEH*		F-Stat 41.08
LST ¹ - estimate excludes Goa, LEX ² - excludes Gujarat t-values in parentheses. # indicates significance at 1% * indicates significance at 5%.					

The fiscal slack for the disaggregated revenue heads under OTR is computed using a fixed effects model which predicts the tax potential for each State for the different taxes considered and the difference between the predicted value and the actual tax performance would reflect ‘fiscal effort’ or measure the ability of the State to create fiscal space from the particular tax. The tax effort index measures the actual tax collections against estimates of tax potential and is computed using actual or proxy tax bases which reflect the relationship between the tax bases and tax revenue. The relative tax effort index is computed for each of the disaggregated taxes for the seventeen non-special category States as the ratio of actual tax revenue to the estimated tax potential and equating the average for all 17 States to 1 (Appendix A contains the tax effort for the individual taxes for each of the seventeen non-special category States). The aggregate tax potential for a State is obtained as the sum of the disaggregated potential and the overall tax effort index is obtained as the ratio of aggregate tax revenue to the aggregate tax potential for the each of the seventeen States. Table 4 presents the aggregate actual tax revenue (from the tax heads considered), estimated tax potential and the tax effort index.

The aggregate tax effort index is a pointer to the challenge of creating fiscal space from own tax revenues at the State level. Half of the non-special category States, eight of the seventeen States, display a tax effort index greater than 1 indicating thereby that across the major revenue heads at the State level, namely, Sales Tax, Excise, Stamp Duty & Registration Fees, Land Revenue and Motor Vehicle Tax, States are already over exploiting the major tax handles particularly in State Sales tax and Excise duty

collections where actual revenue collections over the period 2005-06 to 2009-10 are higher than the potential.

Table 4 Aggregate Tax Effort Index: Non-Special Category States

States	Actual	Potential	Tax Effort Index	Rank
Andhra Pradesh	24673	12932	1.72	1
Bihar	6048	3702	1.48	3
Goa	2046	4786	0.39	17
Chhatisgarh	6471	7876	0.74	14
Gujarat	17576	26596	0.60	15
Haryana	11734	13827	0.77	13
Jharkhand	4627	7875	0.53	16
Karnataka	20629	16448	1.13	8
Kerala	14010	10132	1.25	6
Madhya Pradesh	11407	6777	1.52	2
Maharashtra	36128	37091	0.88	11
Orissa	8476	7863	0.97	10
Punjab	11963	10934	0.99	9
Rajasthan	13895	9584	1.31	4
Tamil Nadu	29075	22890	1.15	7
Uttar Pradesh	22212	15645	1.28	5
West Bengal	12775	14214	0.81	12

All the middle income States with the exception of West Bengal viz. Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and low income States – Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh show an aggregate tax effort index greater than one pointing to very little scope for revenue augmentation in these States and are ranked high in the aggregate tax effort index. Interestingly, all the high income States – Gujarat, Goa, Haryana, Maharashtra and Punjab exhibit low tax effort largely reflecting the lower than average tax effort on State Sales Tax. The range of tax effort index is the narrowest for aggregate taxes and ranges between Andhra Pradesh (1.72) and Jharkhand (0.53) thus exhibiting the differing emphasis on tax handles among States due to political reasons and the administrative expertise developed by a State over a period of time (Sen, 1997).

A look at the tax effort index for the disaggregated taxes (Appendix A) points to the relative tax effort across States. The range of tax effort is the widest for Land Revenue and ranges between 0.07 (Punjab & Haryana) and 2.25 (Gujarat) with the notable exception of West Bengal with a tax effort index of 3.72. The high tax effort index in

West Bengal can be explained by ‘*the cesses on tea plantations and coal mines included in land revenue and unique to the State*’ while the low index for Punjab and Haryana may not reflect *the revenue collected from the agricultural sector through mandi (market) fees on sales in organized markets by surplus farmers. These revenues, however, are not classified as taxes* (Sen, 1997). The spread of the tax effort index for Stamp Duty and Registration Fees is less diverse and if we exclude the smaller States of Chattisgarh, Jharkhand and Goa, it ranges between 0.43 (West Bengal) to a high of 1.84 (Uttar Pradesh). The largest contributor to States’ Own Tax Revenue is State Sales Tax and the tax effort under Sales Tax impacts the overall tax effort of the State. Tax effort under State Sales Tax varies between 0.47 (Jharkhand) to a high of 2.37 (Andhra Pradesh). As mentioned earlier, the high income States exhibit a low tax effort – 0.59 (Gujarat), 0.88 (Haryana), 0.79 (Maharashtra), 0.78 (Punjab) as regards Sales Tax.

Table 5 summarizes the tax effort analysis and identifies States’ taxes for which the tax effort index is low and thus taxes from which States can garner additional revenues.

Table 5 Tax Effort Rank and Areas of Low Tax Effort

States	Tax Effort Rank	Areas
Andhra Pradesh	1	Land Revenue, State Excise Duty
Bihar	3	Land Revenue, Stamp Duty & Registration Fees
Goa	17	Land Revenue, Stamp Duty & Registration Fees, State Excise and Motor Vehicle Tax
Chhatisgarh	14	Stamp Duty & Registration Fees, Sales Tax
Gujarat	15	Stamp Duty & Registration Fees, Sales Tax, Excise and Motor Vehicle Tax
Haryana	13	Land Revenue, Stamp Duty & Registration Fees, Sales Tax, Excise Duty and Motor Vehicle Tax
	13	
Jharkhand	16	Stamp Duty & Registration Fees, Sales Tax, Excise Duty, Motor Vehicle Tax
Karnataka	8	Land Revenue, Excise Duty
Kerala	6	Land Revenue, Stamp Duty & Registration Fees, Excise Duty and Motor Vehicle Tax
Madhya Pradesh	2	Land Revenue
Maharashtra	11	Sales Tax, Motor Vehicle Tax
Orissa	10	Land Revenue, Stamp Duty & Registration Fees, Sales Tax

Punjab	9	Land Revenue, Sales Tax, Motor Vehicle Tax
Rajasthan	4	Land Revenue
Tamil Nadu	7	Land Revenue, Stamp Duty & Registration Fees
Uttar Pradesh	5	Land Revenue, Motor Vehicle Tax
West Bengal	12	Stamp Duty & Registration Fees, Sales Tax, Excise Duty, Motor Vehicle Tax

Table 5 corroborates the fact that the aggregate tax effort rank is largely influenced by the tax effort under Sales Tax due to the significance of revenues from this tax in the Own Tax Revenues of States. The Table also illustrates that even States with a relatively high tax effort rank have at their disposal a few tax handles which can be exploited to generate the much needed fiscal space. Land Revenue, Stamp Duty & Registration Fees and Motor Vehicle Tax feature for a majority of the States while exploitation of State Sales Tax can generate additional revenues in all the high income States. Haryana, for instance, has a low tax effort index for all the major taxes at the State level and can exploit revenue augmenting capacity from all the taxes.

V. Conclusion

We explore the potential to generate fiscal space, or alternatively, estimate the tax effort/internal fiscal capacity of the seventeen non-special category States in India. The tax effort analysis highlights the limited flexibility that middle income and low income States (middle income States with the exception of West Bengal viz. Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and low income States – Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh) have in raising additional revenues from taxes under Own Tax Revenue as the aggregate tax effort index for these States is greater than 1. Interestingly, the high income States – Gujarat, Goa, Haryana, Maharashtra and Punjab exhibit low tax effort largely reflecting their lower than average tax effort on State Sales Tax. The analysis of tax effort has been done in absolute terms and hence if a particular government inherits a low tax effort then despite significant marginal improvements the tax effort continues to remain low. The Sales Tax revenues considered are adjusted for central sales tax and reflect only State-level Sales Tax thereby circumventing the issue of tax exportation which is significant in an origin-based tax such as the central sales tax. Thus, the analysis in the paper could be an indicator to the areas of weak tax effort for a State, thus, identifying areas on which states can concentrate to raise additional revenues.

Consequently, efforts at enhancing internal fiscal capacity at the State level should focus on improving the ratio of Own Tax Revenue to Gross Domestic Product from 7.52 percent to at least 10 percent of GDP by expanding the scope and size of revenue flows, improving revenue buoyancy and tax administration and plugging revenue leakages. Such efforts become imperative given that five States viz. Bihar, Gujarat, Jharkhand, Orissa and West Bengal have an OTR/GSDP ratio which is below the Twelfth Finance Commission target of 6.8 percent. Another facet to the creation of fiscal space at the State level could be increasing revenue (current) receipts as a percent of gross domestic product from an average of 13.2 percent of GDP to about 15 percent of GDP through a proper design of inter-governmental transfers, a regular review of State level taxes and tailoring the design of State-level taxes to suit State-level administrative capacity (Ter-Minassian, 2009, Reserve Bank of India, 2010).

A major reform in indirect taxes - the dual Goods and Services Tax (GST) which was initially to be introduced in April 2011 but whose implementation has been deferred comprising of a State level Goods and Services Tax (SGST) and the Central level Goods and Services Tax (CGST)) can have substantial implications as it would unify multiple layers of taxation. The GST would be a comprehensive levy on manufacture, sale and consumption of goods and services and will help create a transparent tax administration. The roadmap aims to move to a single rate goods and services tax (GST) regime of 16 per cent for the Centre as well as the States and the Centre would compensate States for revenue loss incurred on account of the implementation of GST. When introduced this tax would replace VAT (CENVAT), excise duty and service tax at the Centre and VAT at the State level. Further, out of the purview of the SGST are several items such as stamp duties and registration fees, taxes on crude, motor spirit and high speed diesel, alcoholic beverages, purchase tax and so on. The SGST will consequently reduce the flexibility of States to vary the level of taxes as neither the Centre nor the State can make any unilateral change in the agreed design of GST. However, it is expected that the increase in revenue buoyancy by widening the tax base, lower compliance costs and lower effective tax rates on a wider base can have an impact on the revenue-raising potential of States. (Rao, 2009, Reserve Bank of India, 2010).

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Appendix A

Tax Effort: Major Taxes under States' Own Tax Revenue

Land Revenue and Stamp Duty & Registration Fees

States	Actual Land Revenue	Potential Land Revenue	Tax Effort Index	Actual Stamps	Potential Stamps	Tax Effort Index
Andhra Pradesh	120	241	0.31	2929	1683	1.37
Bihar	74	97	0.46	613	606	0.80
Chhatisgarh	79	46	1.06	457	840	0.43
Goa	6	5	0.76	103	446	0.18
Gujarat	588	160	2.25	1628	1711	0.75
Harayana	13	104	0.074	1639	1520	0.85
Jharkhand	43	25	1.05	210	428	0.39
Karnataka	142	119	0.73	3101	2210	1.11
Kerala	49	79	0.37	1950	1692	0.91
Madhya Pradesh	131	119	0.67	1410	856	1.30
Maharashtra	579	232	1.53	7686	4530	1.34
Orissa	59	86	0.42	328	374	0.69
Punjab	17	145	0.073	1829	1058	1.37
Rajasthan	150	131	0.70	1419	988	1.13
Tamil Nadu	117	120	0.60	3682	3975	0.73
Uttar Pradesh	208	291	0.44	4442	1907	1.84
West Bengal	1222	201	3.72	1518	2782	0.43

State Sales Tax and Excise Duty

States	Actual Sales Tax	Potential Sales Tax	Tax Effort Index	Actual Excise Duty	Potential Excise Duty	Tax Effort Index
Andhra Pradesh	19795	8165	2.37	72	1172	0.04
Bihar	2800	2139	1.28	1393	332	2.74
Chhatisgarh	2884	5541	0.51	2319	953	1.59
Goa	316	0	0	1722	3952	0.26
Gujarat	13887	23017	0.59	1551	1575	0.64
Harayana	8141	9047	0.88	1143	2094	0.36
Jharkhand	3103	6330	0.48	862	617	0.91
Karnataka	13748	11628	1.15	924	1215	0.50
Kerala	9649	5669	1.66	1551	1480	0.69
Madhya Pradesh	6109	4409	1.35	2018	550	2.40
Maharashtra	22290	27647	0.79	3074	1600	1.26
Orissa	4458	5610	0.78	2657	949	1.83
Punjab	5872	7336	0.78	3728	1619	1.51
Rajasthan	7620	6745	1.10	3375	753	2.93
Tamil Nadu	19117	15202	1.23	3582	1372	1.71
Uttar Pradesh	13753	10997	1.22	2484	497	3.27
West Bengal	8598	8946	0.94	830	1052	0.52

Motor Vehicle Tax

States	Actual Motor Vehicle Tax	Potential Motor Vehicle Tax	Tax Effort Index
Andhra Pradesh	1757	1671	1.01
Bihar	1168	528	2.12
Chhatisgarh	215	383	0.54
Goa	1472	1709	0.82
Gujarat	799	1062	0.72
Harayana	2714	1275	2.04
Jharkhand	811	1211	0.64
Karnataka	1739	843	1.97
Kerala	2499	3083	0.78
Madhya Pradesh	974	844	1.11
Maharashtra	517	776	0.64
Orissa	1331	967	1.32
Punjab	2577	2221	1.11
Rajasthan	1325	1953	0.65
Tamil Nadu	606	1233	0.47
Uttar Pradesh	731	495	1.41
West Bengal	410	476	0.82