SUSTAINABLE FISCAL CONSOLIDATION SUGGESTING THE WAY AHEAD FOR KERALA

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ABSTRACT

The paper examines the fiscal scene of Kerala, during the last one and a half decades, by looking at the trends in receipts and expenditure. It finds that a revenue led fiscal consolidation is the way ahead not only for sustaining and expanding the intervention in social sector, but also for stepping up capital outlay. The latter is essential for a better infrastructure, which will induce a faster growth, higher revenue mobilisation and thereby make fiscal consolidation sustainable. For achieving this, the focus will be on more intensively tapping State's own tax potential. Using data from NSSO's 68th round of Consumption Expenditure, the study estimates that actual Sales Tax/VAT collections is below potential by at least 29 percent. The methodological problems in selecting appropriate base, which proxies own tax potential also find mention in the study.

Keywords*: Fiscal Consolidation, Revenue Receipts, Capital Outlay, Own Tax Revenue, Consumption Expenditure.

General Background and Objectives

Kerala's development experience had attracted international attention during the latter half of the twentieth century, due to high level of achievements in Human development Indicators, at a comparatively low level of per capita income, compared to that of other States in India[1]. Since the 1990s, Kerala's Gross State Domestic Product (GSDP), has grown faster and its per capita income has risen above the all India average. In terms of Consumption Expenditure, [as per the quinquennial surveys of National Sample Survey Organisation (NSSO) in 66th and 68th rounds], Kerala ranks first among the Indian States. But the State also ranks first in consumption expenditure inequality (measured by Gini coefficient) among Indian States and public provisioning of social services is facing quality problems.

The per capita income rose higher than all India average, since the 1990s, mainly due to impact of remittances, especially, from the Middle East. However, this could not form a larger tax base for the State. The reasons which can be adduced for this are:

a) inadequately tapping the own tax potential evidenced by growing consumer expenditure and

b) fastest growing services sector being outside the tax net of the State.

The slippage in buoyancy of own tax revenue since the 1990s[2], accompanied by a high level of committed revenue expenditure, resulted in revenue deficit enlarging to 3-4 percent of GSDP, leaving hardly any space for capital outlay. Revenue deficit comprised approximately, 80 percent of the fiscal deficit. Attempts to correct this met with partial success in the second half of the first decade of the 2000s, but the indicators slipped again during the first half of the second decade of the 2000s.

In the meanwhile, the State's development model of high achievements in social sector with a low per capita income, ran into a crisis, with limits set from the fiscal side [See George (1999) for a discussion]. The perceived signs of the crisis were; a) rising proportion of revenue deficits to GSDP; b) a high proportion of revenue deficit in fiscal deficit and c) fall in tax buoyancy [3].

Till the mid-1980s, Kerala did not have a persistent deficit in the revenue account[4]. Subsequently, it became an enduring feature in Kerala and for other States in India. Kerala's GSDP growth, which rose higher than that of the past during the first half of the 1990s, slowed down in the second half of that decade. The slowdown was in accordance with the all-India pattern. National policy shifts resulting in higher interest burden on loans led to higher revenue deficits during the second half of the 1990s for all the States. [See Rao (2002) for a discussion] It was at this time that structural adjustment policies at the States level were initiated with fiscal correction through deficit targeting as the prime aim. As there was no substantial improvement in own revenue, deficit targets were sought to be met through expenditure squeeze. Measures like doing away with statutory pension and contracting out services rather than having permanent employees were resorted to. Due to resistance from mass organisations and civil society groups, across political lines, this expenditure compression led fiscal correction could not last for more than one financial year, that is, 2001-02, in Kerala.

Later, Kerala made an attempt at revenue led fiscal consolidation aiming at higher capital outlay, since 2006-07 and met with partial success.

Kerala did not face any special fiscal crisis during the second half of the 1990s, but was part of the same experienced by all States. But the subsequent fiscal correction achieved by all States (except three[5]) in eliminating revenue deficit, did not occur in Kerala. Having been part of a unique development narrative in the past, Kerala's future path of fiscal consolidation has to aim at sustaining this. It is a fact that the State carries the fiscal burden of past public intervention. Instead of a reversal of the role of the state, fiscal consolidation has to be revenue led by intensive tapping of own revenue potential and increasing capital outlay substantially, so that further economic growth[6] generates more revenue in a self sustaining process.

Given this General Background and objectives, the paper looks at the spending and revenue trends since 2001-02 to 2014-15, in order to analyse the extent of efforts required for fiscal consolidation. This is proposed to be achieved by, a) tapping intensively the potential of own tax revenue, b) spending more on social sector and c) having a substantially higher level of capital outlay. Instead of this, if a mere deficit targeting is attempted, it can lead to situations like States not spending money borrowed at high cost and the same getting parked in low yielding Government of India Treasury Bills as reinvestment of surplus (Isaac and Ramakumar 2006).

2. Conceptual Framework

The emphasis of the study is that the means of eliminating revenue deficit is very pertinent. By fiscal consolidation, we intend that the state should be more fiscally empowered to intervene in social sector, by raising more own tax revenue, as well as its ability to use borrowed funds mainly for capital outlay, This is much beyond what is sought to be achieved by mere deficit targeting, as a proportion of Gross State

Domestic Product, even at the cost of truncating the role of the state. In other words, mere deficit targeting by disempowering the interventionist role of the state can hardly be called fiscal consolidation. Our suggestion for eliminating imbalances in revenue account and stepping up capital outlay is through a revenue led process.

As a part of this, we estimate the own tax potential of Kerala, the most important determinant of fiscal empowerment of the state, based on the methodology described in detail in paragraph 6.3 of this paper. At present, faster growing per capita income and high level of Private Final Consumption Expenditure, have not resulted in more buoyant own tax revenues and there is an emergent need to more effectively tap the own tax potential. This would place the State in a better position to spend on social and economic services, without imbalance in the revenue account. The beneficial consequence of this would be the availability of borrowed capital for physical capital outlay in infrastructure. In short, this is the way ahead, which we are suggesting for our development narrative.

To understand the extent of the task of future fiscal consolidation, we analyse the utilisation of borrowed capital, the trends in the revenue and capital accounts during the last one-and- a-half decades.

3.   Trends in utilisation of Borrowed Capital- 2001-02 to 2014-15

Fiscal deficit is the repayable debt borrowed during a financial year and it comprises, Revenue Deficit (Revenue Expenditure- Revenue Receipts), Capital Outlay and Net Lendings[7]. If Revenue Deficit is brought down, more borrowed money would be spent for capital outlay. It can be seen that RD as a proportion of GSDP and FD came down from 3.36 to 1.85 percent and 77.82 to 60.18 percent respectively, during the second sub-period (2006-07 to 2010-11). However during 2011-12 to 2014-15, RD as a proportion of GSDP and FD widened to 2.81 percent and 66.44 percent respectively. This implies that, at present, two-thirds of the borrowings in a financial year, is spent on revenue expenditure,

Table 1: Trends in Important Deficit Indicators in Kerala

YEAR	RD/GSDP	FD/GSDP	PD/GSDP	RD/FD
2000-01	3.93	4.85	2.00	80.97
2001-02	3.07	3.85	0.92	79.70
2002-03	4.35	5.27	2.16	82.61
2003-04	3.49	5.25	2.09	66.40
2004-05	3.05	3.71	0.70	82.41
2005-06	2.29	3.06	0.18	74.82
AVERAGE	**3.36**	**4.33**	**1.34**	**77.82**
2006-07	1.72	2.49	-0.24	69.02
2007-08	2.16	3.48	1.01	62.04
2008-09	1.83	3.13	0.83	58.49
2009-10	2.16	3.39	1.11	63.81
2010-11	1.39	2.93	0.77	47.52
AVERAGE	**1.85**	**3.08**	**0.70**	**60.18**
2011-12	2.57	4.10	2.09	62.70
2012-13	2.69	4.31	2.24	62.33
2013-14	2.85	4.28	2.19	66.74
2014-15	3.12	4.22	2.01	74.01
AVERAGE	**2.81**	**4.23**	**2.13**	**66.44**

Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India

RD= Revenue Deficit, FD= Fiscal Deficit and PD= Primary Deficit

leaving a mere one third for capital outlay. After reaching the lowest level of 47.52 percent in 2010-11, RD as a proportion of FD has again risen to 74.01 percent in 2014-15. This indicates setback in the attempt towards fiscal consolidation. Our objective of spending the entire borrowed funds on physical capital outlay, during the next five years and beyond, requires a reversal of this trend. In other words, the deficit

in the revenue account will have to be eliminated. Before proceeding to look at how this can be achieved, let us look at the broad trends in revenue expenditure and revenue receipts during 2001-02 to 2014-15.

4.   Trends in Revenue Expenditure

Table 2: Revenue Expenditure growth Rate and as a Proportion of GSDP at Current Prices

Year	Growth Rate of Revenue expenditure	Proportion of Revenue Expenditure to GSDP
2001-02	-1.82	13.84
2002-03	26.53	15.70
2003-04	5.01	14.81
2004-05	10.80	14.40
2005-06	7.31	13.46
AVERAGE	**9.57**	**14.44**
2006-07	13.03	13.54
2007-08	19.53	14.21
2008-09	13.39	13.92
2009-10	10.31	13.40
2010-11	11.35	13.14
AVERAGE	**13.52**	**13.64**
2011-12	32.83	14.73
2012-13	16.17	15.38
2013-14	13.08	15.26
2014-15	18.61	16.23
AVERAGE	**20.17**	**15.4**

Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India Note The growth in 2011-12 is due to implementation of UGC scales and arrears of pay disbursement.

As can be seen from the sub period averages, the growth rate of revenue expenditure was lowest during 2001-02 to 2004-05 at 9.57

percent. This period witnessed compression of revenue expenditure by curtailing benefits of State government employees and prolonged agitations. The second and third sub-periods witnessed average rate of growth of revenue expenditure at 13.52 and 20.17 percent respectively. The revenue deficit also went up during the third sub period, indicating that the corresponding growth rate of revenue receipts was slower.

Table 3: Growth and Proportion of Development Expenditure to GSDP- Kerala

Year	Growth Rate of Development Expenditure	Proportion of Development Expenditure to GSDP
2001-02	-5.77	7.18
2002-03	33.50	8.59
2003-04	0.24	7.74
2004-05	13.41	7.70
2005-06	5.27	7.07
AVERAGE	**9.33**	**7.66**
2006-07	14.83	7.22
2007-08	14.47	7.26
2008-09	22.42	7.67
2009-10	10.54	7.40
2010-11	11.92	7.30
AVERAGE	**14.84**	**7.37**
2011-12	33.76	8.23
2012-13	19.26	8.83

Year	Growth Rate of Development Expenditure	Proportion of Development Expenditure to GSDP
2013-14	10.44	8.56
2014-15	18.90	9.12
AVERAGE	**20.59**	**8.69**

Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India. Note : The rise in growth rate of development expenditure as well as non-development expenditure in 2011-12 is due to impact of quinquennial pay hike, revision of University Grants commission (UGC) pay scales to University and College teachers and consequent payment of arrears to employees. The rise in development expenditure is due to revised salary payment to personnel in health and education sectors and that in non development expenditure due to revision of salary of personnel in general services and pension payments.

The growth rate of development expenditure picked up from an average of 9.33 to 14.84 percent from the first sub period to the second. The proportion to GSDP did not rise due to a faster growth of GSDP during the latter period. The increase in growth rate during the third period to 20.59 percent is substantially due to revision of pay scales by the State government and University Grants Commission.

The same trend is visible in non-developmental expenditure also. The increase in average growth rate is from 10.04 to 12.20 percent from first to second period and during the third sub-period there is a doubling of growth rate to 24.09 percent.

Substantial reduction in revenue expenditure as a proportion of GSDP[8] in Kerala is not feasible for the reason that expenditure is reflective of not only budget considerations but socio, economic and cultural factors[9]. Kerala had incurred a high level of development expenditure, in the past, especially, in education and health sectors due to focussed

Table 4: Growth and Proportion of Non Development Expenditure to GSDP- Kerala

Year	Growth Rate of Non Development expenditure	Proportion of Non Development Expenditure to GSDP
2001-02	2.84	6.94
2002-03	19.01	6.66
2003-04	10.78	7.10
2004-05	7.95	7.07
2005-06	9.64	6.70
AVERAGE	**10.04**	**6.89**
2006-07	11.05	6.40
2007-08	25.31	6.32
2008-09	3.97	6.96
2009-10	10.01	6.25
2010-11	10.64	6.00
AVERAGE	**12.20**	**6.39**
2011-12	31.66	5.85
2012-13	12.25	6.55
2013-14	28.30	7.37
2014-15	7.60	7.11
AVERAGE	**24.09**	**6.59**

Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India.

state intervention. These services being personnel oriented, their salary element is very high. This is classified as developmental expenditure, but later, when pension is granted to these personnel, it is classified as non-developmental expenditure. This makes the non developmental component of revenue expenditure, which is a fall out of the past

development expenditure, quite high in Kerala. To get a correct picture of developmental expenditure, the amount devolved to Local Self Governments (LSGs) should also be added to development expenditure as they are spent mostly on social and economic services[10]. Kerala tops in devolution to LSGs at 1.03 percent of GSDP where as all States average is 0.39 percent.

Kerala's effort in social and economic sector is evident from the high wage and salary component relative to other States and all India average. The State is subject to oft repeated baseless criticism that it spends a major portion of its revenue for salary and wages. As per the Constitutional distribution of powers, social sector is substantially in the State List. As already stated, health and education subsectors of this sector are personnel oriented, and spending on salary of personnel is dominant once the infrastructure is established. A high level of wages and salaries in Kerala (Table 5) is reflective of this[11]. Kerala has a higher life expectancy and had not dispensed with statutory pension, till 2013. Kerala has also not resorted to outsourcing of personnel at lower wages and no social security, in a substantial manner.

Given the increasing income inequalities and rising cost for accessing quality health and education in private sector, a compression of expenditure in these personnel oriented sectors by the government would go against the grain of inclusive growth. A welfare oriented democratic state can ill afford to do this. Given the unique development path of the State, it is neither desirable nor politically feasible to resort to compressing revenue expenditure. The level of 16-17 percent of GSDP (which is higher than the proportion during the period 2001-02 to 2014-15) in revenue expenditure will be a fact to be recognised in the near future[12], if social security measures are to be sustained by focusing on quality improvement in public provisioning of services. Fiscal discipline should be focused on expenditure management as per the budget and

Table 5: Wages and Salaries as a proportion of GSDP Kerala and other States

STATE	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
KERALA	4.15	4.33	4.45	4.53	4.27	4.25	5.21	5.05	4.89
TAMIL NADU	3.06	3.18	3.17	3.60	3.73	3.97	3.91	3.54	3.74
KARNATAKA	2.75	2.60	2.42	2.71	2.88	2.51	2.44	2.22	2.76
WEST BENGAL	3.69	3.35	3.23	3.16	4.20	4.16	3.92	3.64	3.43
All STATES	2.06	2.00	1.89	2.09	2.41	1.90	2.47	2.39	2.35

Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India.

not resorting to announcing off budget packages adversely affecting the financial position of the State.

5. Trends in Revenue Receipts

5.1 Trends in Own Revenue Receipts

A substantial component (about 90 percent) of Own Revenue Receipts[13] is Own Tax Revenue, out of which taxes on commodities, that is, Sales Tax/ Value Added Tax (VAT) is the main source (about 75 percent). Hence, we analyse the trends in these variables.

From the first to the second sub period, there is a rise of 6.44 percent in average growth rate of Own Tax Revenue, but this fell by 4.45 percent during the third sub- period. The growth rate of Sales Tax/VAT

Table 6: Growth of Own Tax Revenue and VAT/Sales Tax Revenue 2001-02 to 2014-15

Year	Own Tax Revenue Growth Rate (%)	ST/VAT Growth Rate (%)
2001-02	0.91	2.23
2002-03	23.28	20.32
2003-04	10.77	12.13
2004-05	10.82	11.84
2005-06	9.09	5.03
AVERAGE	**10.97**	**10.31**
2006-07	22.12	21.67
2007-08	14.46	9.45
2008-09	16.98	21.39
2009-10	10.23	12.25
2010-11	23.25	23.98
AVERAGE	**17.41**	**17.75**

Cont'd........

2011-12	18.40	19.62
2012-13	16.94	18.86
2013-14	6.38	10.55
2014-15	10.12	12.15
AVERAGE	**12.96**	**15.29**

Source : Computed from data in State Finances: A Study of Budgets
   Reserve Bank of India, Various issues.

rose by 7.44 percent in the second sub-period and fell by 2.46 percent in the third sub period. This indicates that the fall in growth rate of components of Own Tax revenue other than Sales Tax/VAT has been steeper. The fall in growth of Own Tax Revenue has happened along with a substantial rise in revenue expenditure during 2011-12 to 2014-15, resulting in widening imbalance in the revenue account.

Figure 1: Growth Rate of VAT and Sales Tax 2001-02 to 2014-15
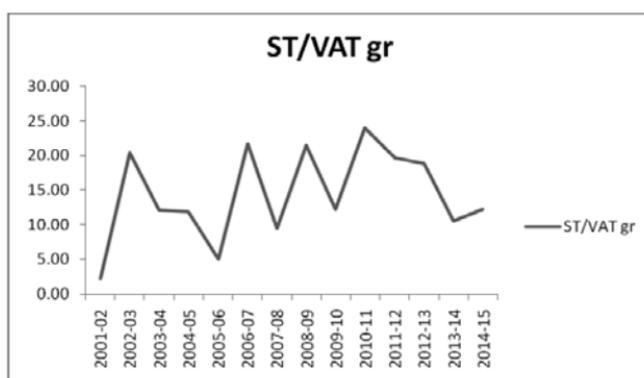
Source : Data in Table 6 above.

Note: The spike in growth rate in 2001-02 is due to an abnormally low base effect. The rise in trend growth rate has actually begun in 2006-07 and there is a discernible downward movement, since 2012-13, in Own Tax Revenue and Sales Tax/ VAT.

Figure 2: Growth Rate of Own Tax Revenue 2001-02 to 2014-15
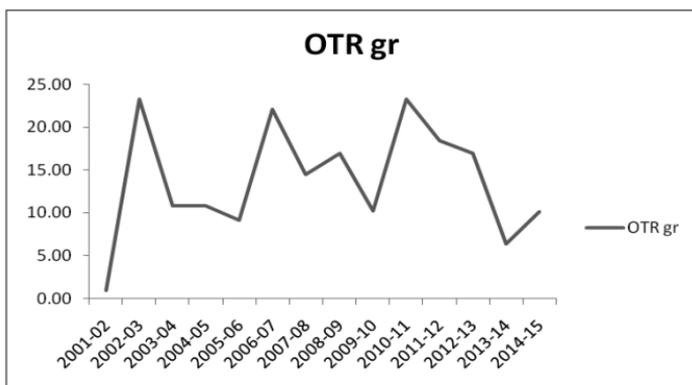
Source : Data in Table 6 above.

Note: The spike in growth rate in 2001-02 is due to an abnormally
         low base effect. The rise in trend growth rate has actually begun
         in 2006-07 and there is a discernible downward movement,
         since 2012-13, in Own Tax Revenue and Sales Tax/ VAT.

5.2 *Devolution of Central Taxes and Grants- A Brief Review and
Expectations*

        As can be seen from Table 7, the Central devolution has seen a
mild rise during the second sub-period and has marginally fallen during
the third sub period. Kerala, being a high per capita income State, a
higher share in tax devolution from the Centre cannot be expected in
future, as a major portion of taxes from the divisible pool is distributed
based on distance of the per capita income of a State from that of average
of highest three per capita income States. With the new Niti Ayog in
place and the changing pattern of financing of Centrally Sponsored
Schemes, the grant disbursement in near future is uncertain to predict.
The average share of Central taxes and grants is 3.23 percent of GSDP
for the past one and a half decades. In the proximate future, the rise in
share of taxes, after the award of the Fourteenth Finance Commission, is
likely to be accompanied by a decline in share of grants[14] and a

reasonable expectation will be 3.5 percent of GSDP, as Central devolution.

Table 7: Trends in Central Devolution of Taxes and Grants to Kerala

Year	Central Taxes as a proportion of GSDP	Central Grants as proportion of GSDP	Total Central Devolution
2001-02	1.92	1.16	3.08
2002-03	1.82	1.00	2.82
2003-04	1.93	0.87	2.80
2004-05	2.02	1.10	3.12
2005-06	1.84	1.51	3.35
AVERAGE	**1.91**	**1.13**	**3.03**
2006-07	2.09	1.36	3.45
2007-08	2.31	1.24	3.55
2008-09	2.11	1.33	3.44
2009-10	1.89	0.96	2.85
2010-11	1.95	0.83	2.78
AVERAGE	**2.07**	**1,14**	**3.21**
2011-12	1.92	1.19	3.11
2012-13	1.97	0.87	2.84
2013-14	1.88	1.04	2.92
2014-15	1.79	1.70	3.49
AVERAGE	**1.89**	**1.20**	**3.09**

Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India

The revenue account of the budget has witnessed slippage due to slow down of Own Tax Revenue growth during 2011-12 to 2014-15, when revenue expenditure growth rose. Given our projection of revenue expenditure at 16-17 percent of GSDP for the future, the own tax revenue has to be tapped more intensively. This is essential for balancing the revenue account without an across the board cut in revenue expenditure

and a higher spending on social sector. With this objective in mind, we proceed to estimate the potential of Own Tax Revenue, by analysing of its largest component, VAT and Sales Tax. Before we proceed to estimate the potential for commodity tax, there are two palpable indicators, which show that our own tax effort needs to be stepped up They are:

A) *Budget Effort*

Budget Effort measures the ratio of actual collections of Sales Tax/VAT to the budget estimates. If the ratio is above 100, the budget effort is efficient and if it is below 100, the budget effort is ineffective. The fall in Budget Effort since 2011-12 needs to be corrected.

**Table 8: Budget Effort of Sales Tax/VAT in Kerala**

Year	Actual (A)	Budget Estimate (B)	Budget Effort (A/B)*100	Budget Effort Of Tamil Nadu
2000-01	4344	4213	103.12	82.86
2001-02	4441	5125	86.65	106.74
2002-03	5343	5167	103.41	104.50
2003-04	5991	5846	102.49	109.52
2004-05	6701	6557	102.20	108.79
2005-06	7038	7034	100.06	94.99
2006-07	8563	8129	105.34	90.94
2007-08	9372	8953	104.68	104.90
2008-09	11377	10089	112.77	95.17
2009-10	12771	12551	101.75	111.53
2010-11	15833	14916	106.15	96.46
2011-12	18939	19224	98.52	101.00
2012-13	22511	23042	97.70	106.47
2013-14	24885	27916	89.14	86.66
2014-15	27908	31913	87.45	82.86

Source: Computed form data in State Finances A study of Budgets, various issues, Reserve Bank of India.

In this context, a comparison of Kerala's Budget Effort is made with that of Tamil Nadu, a State which has a comparable level of own tax effort and social sector spending

It is discernible from the Figure 3 that during the period, 2006-07 to 2010-11, the Budget Effort of Kerala was higher than that of Tamil Nadu, though the Own Tax – GSDP ratio of Tamil Nadu was higher than that of Kerala. Had this trend continued, Kerala's Own Tax- GSDP ratio of Kerala would have been higher now.

Figure 3: Comparative Budget Effort of Kerala and Tamil Nadu 2001-02 to 2014-15
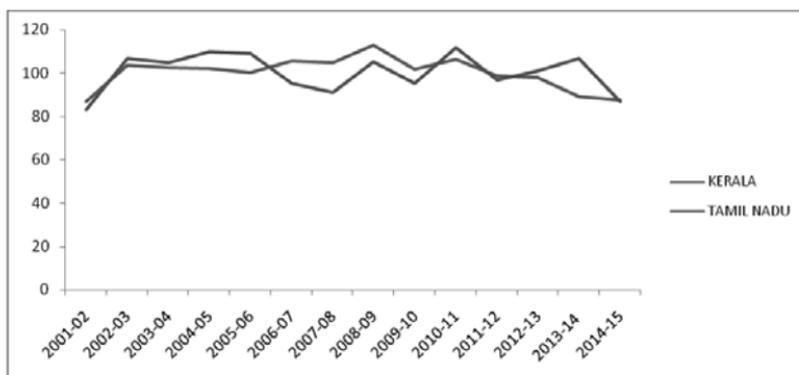
Source: Computed form data in State Finances A study of Budgets, various issues Reserve Bank of India, website of Kerala and Tamil Nadu State governments.

B) C-Efficiency

C-efficiency, estimates the overall gap, that is enforcement gap and policy gap together. In the foregoing paragraph, we measured the enforcement effort only given the rates and exemptions. (For a discussion, see Keen 2011 and Committee Report of GST implementation, Government of India 2015).

$$\text{C-efficiency} = \frac{\underline{\text{Actual Collections}}}{\text{Standard Rate X Tax Base}}$$

We measure C- Efficiency for Kerala since 2005-06, that is, after implementation of VAT, as there is no comparable standard rate for the period before implementation of VAT. The Standard rate is at 12.5, 13.5 and 14.5 percent for different financial years, as the rate was increased twice after 2011-12. Here, we use GSDP at current prices 2004-05, as the tax base, as time series of Annual Consumption Expenditure is not available. The results will not be distorted as the tax base has not undergone any structural change in the time period.

The C-efficiency has been on an average 0.44 for Kerala during 2005-06 to 2014-15 in the post VAT period for Kerala. The average C-efficiency is about 0.6 for high income countries and 0.57 for emerging market countries, and 0.31 for low income countries (GOI 2015). This implies that greater efforts for compliance is called for at the enforcement level, as in the post GST, harmonised tax rate and exemption scenario, scope for policy efforts would be limited. Kerala should attempt to reach the C-efficiency above that of the emerging market economies, as its socio economic variables are comparable or ahead of that of these countries.

As Budget Effort and C-Efficiency clearly indicate, the actual tax collection is below the potential. The next step is to estimate how much lower it is. This involves three steps a) selection of an appropriate base for measuring tax potential, b) the proportion of commodities which are subject to the specified rate/s of VAT and c) finding out the potential tax revenue and then the difference between that and the actual tax collected.

6.   Potential of Own Tax Revenue- A Measurement of Tax Effort

Here, we attempt to find a proxy for potential tax base and estimate potential Sales Tax/VAT collection out of it. Before that, we briefly

Table 9: C –efficiency of Sales Tax/VAT in Kerala

Year	Sales Tax/Vat	Gsdp	C-effciency
2005-06	7038	136842	0.41
2006-07	8563	153785	0.45
2007-08	9372	175141	0.43
2008-09	11377	202783	0.45
2009-10	12771	232381	0.44
2010-11	15833	263773	0.48
2011-12	18939	312677	0.45
2012-13	22511	347841	0.45
2013-14	24885	396282	0.47
2014-15	27908	441911	0.43

Source: Computed form data in State Finances A study of Budgets,
       various issues, Reserve Bank of India.

review the findings of a few studies in this area. Several studies have measured the gap between tax potential and actual tax collection. The report of the last Taxation Enquiry Committee of Kerala, which made the official attempt to measure commodity-wise tax potential, was published in 1969. Studies by scholars have used different methodologies and the estimate of tax leakage has varied from 10-35 percent. There is broad agreement that though the Kerala's Own Tax Revenue and Sales Tax/ VAT is above the all- States average, the actual collection is well below the potential. The findings of the studies are briefly discussed below.

6.1   Tax Potential of States- A Brief Review of the Findings

Garg, Goyal and Pal (2014) have estimated tax capacity of Indian States using Stochastic Frontier Approach (SFA) and identified States performing near tax frontier and far below tax frontier. As per their estimates, the States near 100% of tax effort are Gujarat, Karnataka,

Maharashtra, Punjab, Haryana and Tamil Nadu. States showing very low tax effort are Orissa, Bihar and West Bengal at less than 50 percent and Uttar Pradesh at 62 percent. Kerala is at 90 percent of tax potential. Panagriya, Chakraborthy and Rao (2014) have estimated tax capacity of Indian States by regression method with logarithmic transformation of per capita tax revenue, as the dependent variable and logarithmic transformation of per capita GSDP and primary sector share in GSDP as dependent variables, for the period 1991-92 to 2009-10. It was found that the relationship between per capita tax revenue and per capita GSDP is positive and statistically significant while that with the share primary sector in GSDP is negative, but not statistically significant. Tax effort is measured as ratio of actual revenue to the revenue that should have been raised with the tax capacity estimated. States were ranked with index of 100 for States with average tax effort, above 100 for States with more than average tax effort and below 100 for States with less than average tax effort. Andhra Pradesh, Chhattisgarh, Karnataka, Kerala. Madhya Pradesh, Rajasthan and Tamil Nadu have index above 100, while Assam, Bihar, Gujarat, Haryana, Jharkhand, Maharashtra, Odisha, Punjab, Uttar Pradesh and West Bengal have index below 100 during 2009-10. Raychaudhuri and Roy (2013) measure tax base as registered manufacturing, registered trade and construction sectors of GSDP. Proportion of unregistered trade to total trade value added is also included as an explanatory variable. The ratio of tax potential to actual tax of States, which is the inverse of tax effort, is measured. States with ratio less than 1 have more than average tax effort and States with ratio more than 1 have less than average tax effort. Andhra Pradesh, Chhattisgarh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu and Uttar Pradesh have more than average tax effort and Bihar, Goa, Gujarat, Haryana, Jharkhand, Odisha, Rajasthan and West Bengal have less than average tax effort. Raju (2012) has estimated taxable capacity of 17 non-Special Category States for aggregate tax effort and has ranked Andhra Pradesh as first followed by Madhya Pradesh, Bihar, Rajasthan,

Uttar Pradesh and Kerala. For estimating Sales tax potential, Average Private Consumption Expenditure (APCE), is included as an independent variable along with Manufacturing Sector GSDP. The former is significant at 5 percent level while the latter is significant at 1 percent level. Purohit (2006) estimated taxable capacity and tax effort of various taxes comprising Own Tax Revenue of States and found that in Sales Tax effort, Kerala ranks first followed by Tamil Nadu, Goa, Andhra Pradesh and Karnataka. Rakhee (2003) has measured the tax leakage at 35 percent of own tax revenue for Kerala. In this study consumption expenditure as well as GSDP including remittances has been used to estimate tax potential[15]. The co-efficient of consumption expenditure is not significant at 5 percent level. Sen (1997) measures capacity of a State for Sales tax collection as a function of per capita net State Domestic Product, share of agriculture in total SDP, urbanisation as per 1991 census and number of scheduled bank branches. Kerala ranks first in tax effort for Sales Tax, followed by Gujarat, Karnataka, Bihar and Tamil Nadu. In Condoo et al, which has estimated relative tax performance for selected states during 1986-87 to 1996-97, the best performing States are Goa, Gujarat, Karnataka, Kerala, Rajasthan and Tamil Nadu and the worst performing states are Assam, Orissa and West Bengal. The States with medium level performance are Bihar, Haryana, Madhya Pradesh and Uttar Pradesh. Some other States start out at the medium/ top level and show a declining trend are Andhra Pradesh, Maharashtra and Punjab. Oomen (1987) ranked States by relative tax effort using regression method, with income from agriculture, income from manufacturing, income from hotels, trade and commerce and per capita income as explanatory variables. The impact inclusive of discretionary changes and only automatic response to income, that is buoyancy and elasticity, are estimated separately. In both indicators, Karnataka, Kerala, Andhra Pradesh, Madhya Pradesh etc. are better performers and rich States like Maharashtra and Punjab are relatively poor performers. The non-inclusion of remittance income in Kerala's tax base is specially

mentioned in the study. The different methodologies and findings are summarised in Table 10.

6.2 Issues in selection of an appropriate base as Proxy for Tax Potential

Consumption Expenditure can be considered as the most proximate base for commodity taxes like Sales tax/VAT, rather than GSDP, which is the production base of the economy, as they are levied on consumption. But the limitation in using Consumption Expenditure as a proxy is that time series data are not available and quinquennial thick rounds and annual thin rounds of NSSO data on Consumption Expenditure are not comparable. In contrast, year-wise and even quarter-wise data on GSDP is available. When GSDP is computed by expenditure method, Private Final Consumption Expenditure (PFCE) forms a part of it. But this and Consumption Expenditure as per NSSO sample survey, vary widely as the former is computed as a residual from commodity flow approach and the latter by direct observation from sample survey.[16] The reliability of data collected from direct observation in a large sample survey is given more reliability.

In Kerala context, there is also the criticism is that GSDP does not take into account remittances from abroad, especially the Middle East, which are a substantial part of individual incomes. It is to be noted that if remittances are added to GSDP, it would result in more than warranted enlargement of the base and double counting. The respective reasons are a) consumption, though a function of income cannot be equated with income, as part of income is saved and the data on propensity to consume out of income from remittances are not readily available and b) consumption out of remittances or a substantial part of it, does get captured as part of trade and real estate sector of GSDP. A more appropriate proxy for tax base of consumption based commodity taxes would be consumption expenditure based on quinquennial sample survey of

Table 10: Brief Review of findings of Studies on Tax Potential of Indian States

Sl No	Study	Methodology	Findings
1	Garg, Goyal and Pal (2014)	Stochastic Frontier Analysis	It considers not only economic but also structural and institutional variables like education, corruption etc. But measurement of these variables are problematic'
2	Panagriya, Chakraborthy and Rao (2014)	Regression Method	Uses per capita GSDP and share of primary sector in GSDP. GSDP, though only measure available across States to construct a Time Series is not considered by many as appropriate measure.
3	Raychaudhuri and Roy (2013)	Regression method	Use presence of unorganised sector, estimates this at 35 percent in Kerala.
4	Raju (2012)	Regression method	Uses Average Private Final Consumption Expenditure. Co efficient is not significant at 0 or 1 percent level but at 5 % level.
5	Purohit (2006)	Regression method	1Different explanatory variables used. Per capita GSDP for Commodity Taxes
6	Rakhee (2003)	Regression Method	Uses Personal Consumption Expenditure and GSDP including remittances. Coefficient of Personal Consumption Expenditure not significant at 5 % level. Leakage out of Remittances not considered. Uses the same explanatory variable for commodity taxes and other components of Own Tax revenue.
8	Sen (1997)	Regression Method	Different explanatory variables used. Per capita GSDP for Commodity Taxes
9	Bagchi and Sen(1988)	Regression Method	Suggests own best performance in the past of the State as an indicator
10	Oomen (1987)	Regression Method	Ranks States on the basis of relative tax effort separately for automatic response to income and discretionary changes, that is buoyancy and elasticity separately.

Source: As stated in paragraph 6.1.

NSSO[17], but year-wise time series cannot be constructed for reasons stated above.

6.3 *Potential Tax Revenue from Consumption Expenditure as Base- An Estimation*

As already stated, we are not able to construct a time series, as yearly data on Consumption Expenditure are not available. An estimation based on growth rates for intervening periods would lead to bias as can be seen from the findings of some of the studies [Raju (2012) and Rakhee (2003)], which had estimated Consumption Expenditure as an explanatory variable in the equations, and got coefficients with no statistical significance at 1 percent and even 5 percent level. This is counter intuitive. Our proxy estimate based on NSSO's quinquennial round is an indicator of the gap between potential and the actual collection of Sales Tax/VAT. Keen (2011) has pointed out that VAT Gap is officially measured in the U.K. in this manner and published.[18]

Based on the NSSO sample survey 68th round, we get the Monthly Per Capita Expenditure on food and non food items separately for rural and urban areas. From this, Annual Per Capita Consumption Expenditure is computed for rural and urban areas separately. A weighted average (with weights being proportion of food and non food consumption) is taken for rural and urban areas. State average of Annual Per Capita Consumption Expenditure is computed as the weighted average of rural and urban consumption (with ratio of rural and urban consumption households as the weights). When multiplied by the total number of households, we get the total Annual Consumption Expenditure in the State. To estimate the potential VAT base, tax exempt items, like goods in kind and transfer, goods from Public Distribution System, fees on education etc will have to be excluded from Annual Consumption Expenditure of the State. A deduction of 5 percent for these items is

given from the Annual Consumption Expenditure and Potential Tax Base is estimated. The estimate works out to Rs 2,79,855 crore. To estimate Potential Sales Tax/VAT collection, taxable commodities in this base are divided in proportion of revenue yield with reference to the respective VAT rates. Substantial number of commodities, almost 60 % is taxed at 5 percent, 39% at 14.5 percent and a negligible 1% at 1 percent rate[19]. Applying the rates for commodities in the annual consumption expenditure in these ratios, we get the potential VAT collection for 2011-12 at Rs 23158 crore

When this is subtracted from the actual VAT collection for 2001-12, that is, Rs 18558 crore, we get Rs 4600 crore. But this explains only a part of the gap between potential and actual. Another part of the gap is under assessment due to overlooking errors and inefficiencies in scrutinising VAT returns. The tax escaping assessment detected by Comptroller and Auditor General (C & AG) of India, based on a test check of 1920 cases (out of 1,86,987 assessees), and accepted by the Commercial Taxes Department is about Rs 800 crore[20]. The total gap for 2011-12, works out Rs 5400 crore (Rs 4600 crore + Rs 800 crore).

The percentage of leakage of revenue on commodity taxes, that is, VAT and sales tax, is estimated at 29.10 percent (VAT GAP/ Actual VAT collections)[21]. This estimate is consciously kept on the lower side for the mere fact that it is an estimate. The average gap between potential and actual collection is 2.41 percent for the period 2011-12 to 2013-14. (see Annexure for details of estimation). If revenue from commodity taxes had been increased by 29 percent since 2011-12 (the year of estimation of potential tax base and potential tax collection), State's Own Tax Revenue would have been as under:

Table 11: Potential and Actual Tax collections in Kerala (in Rs crore)

Year	Potential Own Tax Revenue (POTR)	Actual Own Tax Revenue (OTR)	POTR/ GSDP (%)	OTR/ GSDP (%)	GAP (%)
2011-12	33177	25719	10.61	8.23	2.39
2012-13	38799	30077	11.15	8.65	2.51
2013-14	41273	31995	10.42	8.07	2.34
2014-15	45449	35232	10.28	7.98	2.30

Source: Methodology described in Paragraph 6.3.

The average ratio of potential collection of Own Tax revenue to GSDP is 10.61 percent for the period 2011-12 to 2014-15, as against actual Own Tax Revenue to GSDP at 8.23 percent. Based on this potential and estimated leakage of 29 percent of Own Tax Revenue, we project the roadmap for balancing of revenue account for the next five years and beyond. Before that, let us look at the trends in Capital Outlay during the last one and a half decades.

7. Trends in Capital Outlay

Capital outlay as a proportion of GSDP in Kerala at 1.01 percent during the period 2005-06 to 2013-14, is way below the all India average of 2.40 percent for 15 major States. But if the growth rate of capital outlay for Kerala is looked at during 2001-02 to 2014-15, there is a discernible upward shift since 2006-07. The proportion of revenue deficit to fiscal deficit, which was round 80 percent in 2001-02, came down to 47 percent in 2010-11. Though most of the General Category States eliminated revenue deficit as a proportion of fiscal deficit since 2007-08, this has not happened in Kerala. But growth rate of capital outlay over time is clearly visible since 2006-07 and its rise as proportion of fiscal deficit is the consequence of fall in proportion of revenue deficit in fiscal deficit (Table 1). This trend will have to continue for sustaining fiscal consolidation by reducing revenue deficits.

Table 12: Growth Rate and Proportion of Capital Outlay to GSDP

Year	Growth Rate of Capital Outlay	Proportion of Capital Outlay to GSDP
2001-02	-3.26	0.66
2002-03	25.13	0.74
2003-04	-8.44	0.61
2004-05	6.57	0.57
2005-06	19.89	0.60
AVEREAGE	**5.00**	**0.63**
2006-07	10.43	0.59
2007-08	63.37	0.84
2008-09	14.99	0.84
2009-10	21.46	0.89
2010-11	63.33	1.28
AVERAGE	**34.71**	**0.88**
2011-12	14.54	1.23
2012-13	19.48	1.32
2013-14	-6.72	1.08
2014-15	-0.93	0.96
AVERAGE	**6.59**	**1.15**

Source: Computed form data in State Finances A study of Budgets, various issues, Reserve Bank of India.

To substantially increase the capital outlay to GSDP ratio, not only the proportion of revenue deficit to GSDP should come down from the present level, but there should be more borrowing by the State itself and through Special Purpose Vehicles (SPVs). A higher capital outlay on infrastructure will be growth inducing which would in turn provide a higher base for revenue mobilisation and provide more room for development expenditure. In paragraph 8.2 we project our estimations for Capital Outlay during the next five years and beyond.

For achieving the expected rise in capital outlay, consolidation in revenue account has to be simultaneously attempted. As stated at the outset, this is not suggested through across the board expenditure cuts, which is neither politically feasible nor desirable from the point of view of sustaining the social sector achievements of the past. As seen from the estimation of Own Tax Revenue potential, there is scope for tapping the same, more intensively, given that the State ranks number 1 among Indian States in per capita Monthly Consumption Expenditure as per NSSO latest quinquennial round[22].

8.   Projected Scenario- The Way Ahead

8.1   How to Get Over Imbalances in Revenue Account?

The ratio of Potential Own Tax Revenue to GSDP is at 10.61 percent based on tapping the Sales Tax/VAT component more intensively[23]. After 2017-18, and beyond, the ratio of Potential Own Tax Revenue to GSDP is expected to be at 11.61 percent factoring in estimated gain of additional 1 percent due to GST implementation and later at 12 and 12.2 percent due to expected better compliance. These estimates are very moderate and do leave scope for further improvement.

Table 13: Projected Own Tax Revenue for 5 years and beyond

Year	GSDP (Current 2004-05)	Own Tax Revenue	Growth Rate
2016-17	609242	64580	
2017-18	712813	82686	28.04
2018-19	833992	100079	21.03
2019-20	975770	117092	17.00
2020-21	1141651	139281	18.95
2021-22	1335732	162959	17.00

Note: The growth rate for 2017-18 is at 28 percent because projected revenue from GST implementation is worked out for the first time. Own Tax Revenue is estimated on the basis of Methodology discussed in Paragraph 6.3.

Table 14: Projected Central Devolution of Taxes and Grants for 5 years and beyond (Rs crore)

Year	GSDP (Current 2004-05)	Central Devolution of Taxes And Grants (3.5 Percent of GSDP)
2016-17	609242	21323
2017-18	712813	24948
2018-19	833992	29190
2019-20	975770	34152
2020-21	1141651	39958

Table 15: Projected Revenue Expenditure for Next 5 years and beyond (Rs crore)

Year	GSDP (Current 2004-05)	Revenue Expenditure	Growth Rate %	Revenue Expenditure As Proportion of GSDP
2015-16	520720	88965	23.99	17.08
2016-17	609242	106758	20.00	17.52
2017-18	712813	117614	10.17	16.50
2018-19	833992	137609	17.00	16.50
2019-20	975770	161002	17.00	16.50
2020-21	1141651	202386	25.70	17.73
2021-22	1335732	242863	20.00	18.18

Note: An upward adjustment has been made for the revised estimate of 2015-16 and budget estimate of 2016-17 taking into account impact of pay revision. The higher proportion for 2020-21 and 2021-22 is also due to expected pay revision after five years.

Table 16: Projected Scenario for Next 5 Years in Revenue Account in Kerala (Rs crore)[24]

Year	Own Tax Revenue	Own Non Tax Revenue (1.3 % of GSDP)	Central Devolution (Taxes + Grants) (3.5 % of GSDP)	Revenue Receipts	Revenue Expen-diture	Revenue Deficit/ Surplus
2016-17	64580	7920	21323	93823	106758	12935 (2.12%)
2017-18	82686	9267	24948	116901	117614	-713 (0.10%)
2018-19	100079	10842	29190	140111	137609	2502
2019-20	117092	12685	34152	163929	161002	2927
2020-21	139281	14841	39958	194081	202386	-8305 (0.72 %)
2021-22	162959	17365	46751	227074	242863	15788 (1.18%)

In parentheses, is percentage of Revenue Deficit as a proportion of GSDP, The revenue deficits occurring during pay revision years due to payments of arrears would correct themselves in subsequent years due lower growth rate of revenue expenditure after arrears payment.

While projecting the revenue expenditure for the next five years and beyond, we factor in the additional liabilities due to implementation of State Pay Commission recommendations and revision of pay scales for teachers in higher education sector by the University Grants Commission (UGC), in the first two years and in the last two years of the time period. In the two years after pay revision, there will be substantial higher than normal growth of revenue expenditure due to payment of arrears. The excess growth rate during similar years of the past (2007-08 and 2011-12) is taken as the basis for estimation. When State pay revision and UGC pay revision come together, there would be a jump (12-13 percent above normal rate of growth) in the proportion of revenue

expenditure to GSDP in current 2004-05 prices. This is distributed in the first and second years after pay revision. The projected growth of revenue expenditure from 2015-16 to 2021-22 is illustrated in Table 15.

Except for years when pay revision commitments arise, the ratio of revenue expenditure to GSDP will be on an average 16.50 percent. Though this is higher than all States average of 13.57 percent, and also the past proportion of revenue expenditure to GSDP for Kerala itself, this would be necessary for revitalising the role of the state in social sector and for sustaining the unique development path of the State.

It also needs mention that there are some State specific issues which impede tax mobilisation effort.

a)   There is organised resistance to traditional tax enforcement methods like searches and shop inspections. In a technology enabled environment, detection and enforcement have to be more information based. Traditional methods can be used as a deterrent in certain cases selectively.[25]

b)   Though there is substantial number of dealers, this is not reflected in collection, as observed by C & AG in audit of Revenue Receipts 2012. Special efforts are to be made in this regard.

c)   Kerala's economy, especially its fastest growing sectors, like personal and community services are under hard to tax group.

d)   The evasion prevalent in easy to hoard items, like jewellery, necessitates a very high cost of enforcement. Alesina (1998) points out that when tax evasion becomes prevalent, detection is difficult. According to the study, in tax evasion, cultural attitudes matter.

e)   VAT with credit for input taxes paid is claimed to be a self policing mechanism. But effectiveness can be improved through impact of focused tax audit, as revealed in a study of the Chile's VAT

system (Pomeranz 2015). This seems to be lacking in Kerala, as can be seen from the reports of the C & AG (see Report No.7 of 2014).

f) The remittance induced growth of per capita income has made a large section of middle class gravitate towards the private providers of education and health services. They can be attracted back to the public provisioning of these services by improving quality and providing services at a reasonable cost. This requires more spending under revenue and capital heads by the government. This can lead to bringing back the sense of belongingness to public provisioning of services and via that increased tax awareness among these classes.

The impediments mentioned above can be overcome only through awareness and cooperation from civil society groups and mass organisations, besides Government efforts to enforce compliance in a technology enabled environment. There is also scope for improvement in other components of Own Tax Revenue than Sales Tax/VAT. Kerala's relative performance in this area is below that of other States and the States ranks twelfth among fifteen major Indian States in this. Moreover, collection from non tax revenues will have to be through improved efficiency and not through steep hike in user charges. As stated in the General Background at the beginning, trend towards fiscal consolidation during 2006-07 to 2010-11 met with partial success, but this needs to be carried forward.

The three way approach towards this will have to be:

a) sustained development expenditure

b) a rise of capital outlay to GSDP from present average to 3 percent in the next five years and possibly 4 percent by aiming at relaxation of FRBMA or borrowing through special purpose vehicles by securitising identified sources of future revenues and

c) tapping own revenue potential by plugging tax leakage estimated at least to the extent of 29 percent of the potential for Sales Tax/ VAT, improving collection efficiency of other components of own tax revenues, non tax revenues and the additional revenues from expanded tax base after implementation of Goods and Services Tax (GST).

8.2 The Expected Growth of Capital Outlay- 2017-18 to 2021-22

We project GSDP figures in 2004-05, Current Prices, for above period at 17 percent growth per annum based on the previous 5 years average of 16.89 percent[26] and forecast that Capital Outlay should gradually increase from 2 to 4 percent of GSDP.

Table 17: Projected Capital Outlay for Next 5 years and beyond (Rs crore)

Year	GSDP (Current 2004-05)	Capital Outlay	Growth Rate %	Capital Outlay as Proportion of GSDP
2016-17	609242	12185	56.00	2.00
2017-18	712813	17820	46.25	2.50
2018-19	833992	25020	40.40	3.00
2019-20	975770	29273	17.00	3.00
2020-21	1141651	39958	36.50	3.50
2021-22	1335732	53429	33.71	4.00

Source: As in paragraph 8.2.

9.   High lights in lieu of Conclusion

A more intensive tapping of own tax and non tax potential, can result in elimination of revenue deficit, even while allowing for a rise in revenue expenditure as a proportion of GSDP. The estimate of tax leakage on commodity taxation on intra State sales is estimated conservatively at 29 percent based on NSSO data on consumption expenditure for 2011-12. This is an increase of 6.19 percent from 22.91 percent based

on NSSO data for 2009-10. The leakage estimation can go up if other components of own tax revenue are also considered.

Along with tapping own tax revenue potential in a more intensive manner, the composition of expenditure needs close monitoring. Projects should be declared only in budget and their progress analysed to avoid financial year end spending. Fresh allotment should be based on utilisation of previous year's funds. Once allocation is made in the budget, administrative and financial approval can be made by empowering the respective departments.

The state has to increase proportion of Capital Out lay to GSDP at least to 3 percent of GSDP in the near future. If the targeted improvement in revenue account works out, Kerala should be able to bargain for a higher limit of 4 percent of Fiscal Deficit to GSDP ratio, which will be entirely for capital outlay. Borrowings outside budget should also be possible by utilising funds available with co-operative banks and securitising revenue from specific sources for infrastructural improvement. The path ahead will be revenue led with more capital outlay and will be growth inducing. This would form the larger potential base for further revenue raising and thereby self sustaining.

In short, the objectives of a revenue led fiscal consolidation are a) to sustain and augment social sector spending in the revenue account b) spend substantially higher amount for capital outlay on infrastructure for building a new base for economic growth and c) thereby make process of fiscal consolidation sustainable.

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ANNEXURE

Methodology of Estimation of Potential Tax Base from NSSO data on Per Capita Monthly Consumption Expenditure (68th Round 2011-12)

1 Rural	Food (Monthly) Rs 1147/- (Annual Rs 13764/-)	Urban	Food (Monthly) Rs 1260/- (Annaual Rs 15120/-)
2 Rural	Non Food (Monthly) Rs 2669/- (Annual Rs 32025/-)	Urban	Non Food (Monthly) Rs 3408/- (Annual Rs 40898/-)
3 Rural	Food + Non Food (weighted average by food non food proportion in annual per capita expenditure) (Annual Rs 26547/-)	Urban	Food + Non Food (weighted average by food non food proportion in annual per capita expenditure) (Annual (Rs 33940/-)
4	Rural + Urban (Per Capita Annual weighted by ratio of number of urban and rural households)		Rs 29756/-
5	Total Annual Consumption Expenditure [Rural + Urban (per Capita Annual multiplied by no of households in the State)		Rs 29,45,84 crore
6	Potential Tax Base [Total Annual Consumption Expenditure less 5 percent for tax exempt items]		Rs 279855 crore
7	Potential Tax collection (1% taxable items at 2 %, 5% taxable items at 60% of the base and 14.5 % taxable items at 38% of the base)		Rs 23158 crore
8	Actual VAT Collection for 2011-12		Rs 18558 crore
9	VAT Gap 1 (7-8)		Rs 4600 crore
10	VAT Gap 2 Escapement noticed by C & AG and accepted by the Commercial Taxes Department		Rs 800 crore
11	VAT Gap (9+10)		Rs 5400 crore
12	Leakage of Sales Tax/VAT (11 as a percentage of 8)		29.10 %

Notes

1. Comparison has been done at international level also. See Dreaze and Sen (1991) for a discussion.

2. The own tax buoyancy [Percentage change of Own Tax Revenue to Percentage change of Gross State Domestic Product (GSDP)] fell to around 1 percent in the 1990s and improved to 1.15 percent in the latter half of the 2000s, as against the average 1.30 percent during the period 1960-1990.

3. Together these indicators can lead to a higher proportion of Public Debt to GSDP.

4. For details, see Mohan and Shyjan (2005).

5. The three States are Kerala, Punjab and West Bengal. See Report of the Thirteenth Finance Commission. For a detailed study of own tax effort of West Bengal and its comparison with Andhra Pradesh, see Diwedi et al (2016).

6. See Jain and Kumar (2013) for a detailed discussion. The study states that "Even though the States' capital outlay has the highest multiplier effect on GDP, its share in combined expenditure is only 6.7 per cent (an average of 1980-81 to 2011-12). With a lower share of capital outlay in combined spending of Central and State governments, the growth impact of an increase in capital outlay is understandably quite low. High multiplier in case of local spending than that at the federal level is generally observed in literature. High value of multiplier for non-defence capital outlay/total capital outlay appears to be consistent with the literature." Another study which finds positive impact of Government size on Economic Growth is Ram (1986). Using the same methodology of Ram (1986), it has been found that capital spending has a positive impact on Economic Growth in India, Mohan (2003).

7. Gross Fiscal Deficit comprises Revenue Deficit, Capital Outlay and Net Lendings. We use the concept of Gross Fiscal Deficit. Net Fiscal Deficit excludes Net Lendings.

8. The all States average of revenue expenditure as a proportion of GSDP during the period, 2005-06 to 2013-14 is 13.57 percent. But in the case of development expenditure as a proportion of GSDP, Kerala ranks 12th and for non development expenditure as a proportion of GSDP, it ranks 2nd among fifteen major States of India during the same time period. This could be due to the fiscal burden of personnel oriented social sector spending over the long run.

9. The state intervention in social sector has a long political history of mass movements exerting pressure from below. These movements became part of the social ethos and the vibrant civil society of Kerala. For a detailed discussion, see Harris and Tornquist (2015)

10. The amount devolved to LSGs from budget is shown in non-plan non-development revenue head. But a substantial portion of this is spent on development expenditure and investment in physical infrastructure. But

State level break up of data is not available. In the budget documents of Kerala, while computing Effective Revenue Deficit (that is, revenue Deficit net of grants utilised for asset generation), amount devolved to Local Bodies in the budget head is deducted.

11. Tamil Nadu's proportion of wages and salaries is also ahead of all States average as it had also focused on social sector spending in the past.

12. See the Chapter on Kerala's Public Finance in Kerala Development Agenda, Volume 3, presented in the Fourth International Study Congress on Kerala. January 9,10, conducted by AKG Studies & Research Centre, Thiruvananthapuram.

13. In the Non Tax Revenue component of Own Revenue Receipts, a major portion is receipts from Lotteries, which is the gross amount, that is, before spending for distribution of prize money. After spending for prize money, there will be a little left as net receipts from Lotteries. Due to this, the inclusion of gross receipts from Lotteries, results in an overestimation of Own Revenue Receipts.

14. See Chakraborty (2016) for a discussion of trends in Central grants with analysis of budget of Bihar (2014-15 Revised Estimates and 2015-16 Budget Estimates). This is at best indicative. There is decline in grant devolution while increase in tax devolution compensates for this for Bihar. In Kerala's case, there is increase in inter-se share of tax devolution in the award of the Fourteenth Finance Commission. But the likely change in grant share can result in total Central devolution to GSDP remaining approximately same as the average of the last one and a half decade. In this study, for estimation of future revenue receipts, the total Central devolution of tax and grants has been taken at 3.5 percent of the GSDP.

15. The measure used which is GSDP and remittances together, is called Modified State Income (MSI). For a discussion see Kannan and Hari (2002).

16. For a discussion see Sundram and Tendulkar (2001).

17. There is a criticism that the results of the NSSO survey have a downward bias, as it does not fully capture the consumption in the upper deciles. Nevertheless, it is the most comprehensive available data, based on large sample, for consumption expenditure.

18. In the Indian scenario, no such measurement for tax potential is made at the Central or States level. But along with the Central budget, a statement of Revenue Foregone is published, which is the revenue not collected because of exemptions and deductions given and does not measure tax potential.

19. This is taken at approximately the same proportion as taken by National Institute of Public Finance and Policy (NIPFP) for estimating Revenue Neutral Rate (RNR) for Goods and Services Tax (GST). See Rao (2016).

20. Though used for estimation purposes, it should be taken note of that this is only a very small portion of the errors which can be detected in cross verification and scrutiny. Only 11 percent of the returns furnished by the assesses during 2011-12 were scrutinised. When these were test checked by

the audit party of C & AG, these errors were found. There is evasion which is not reflected in the returns as well as in returns which had not been scrutinised. In short, the actual figure can be much more. See Chapter on Public Finance in Kerala Development Agenda, Volume 3, Fourth International Kerala Study Congress, January 9, 10. Thiruvananthapuram.

21. The potential tax base computed using the same methodology, was Rs 235687 crore. The VAT rates were 1 percent, 4 percent and 12.5 percent. The potential VAT was Rs 14742 crore and the actual collection was Rs 12448 crore. The VAT Gap 1 was Rs 2294 crore and the VAT Gap 2 was Rs 558.6 crore. The total VAT Gap was Rs 2852 crore and the tax leakage (VAT GAP/Actual VAT collections) was 22.91 percent. From 2009-10 to 2011-12, there is an increase of 6.19 percent in estimated tax leakage.

22. As per the estimated revenue receipts and revenue expenditure (see Table 16) for the period of 5 years and beyond, the entire borrowings for 2018-19 and 2019-20 will be for capital outlay and part of revenue surplus also can be utilised for capital outlay.

23. Additional estimations for other components of own tax revenue is not separately made here. Efforts in the respective areas would augment their collections and they have to be worked out in specific details with regard to their bases.

24. In the alternate scenario of nominal GSDP (2004-05) current prices, growing at a slower rate of 13 percent, revenue deficit, in non pay revision years can still be brought to near zero or zero with little extra effort. It is to be kept in mind that additional revenue due to spending from increased pay and arrears has not been separately factored in.

Alternate Scenario, when nominal GSDP growth rate is 13 percent. (figures Rs crore)

Year	GSDP	OTR	ONTR	Central Devolu-tion	Revenue Receipts	Revenue Expen-diture	Revenue Deficit	Revenue Deficit GSDP
2016-17	584872	62055	7603	20471	90129	99896	-9767	1.67
2017-18	684300	79447	8896	23951	112294	119889	-7596	1.11
2018-19	800632	92953	10408	28022	131384	132104	-721	0.09
2019-20	936739	108755	12178	32786	153719	154562	-843	0.09
2020-21	1095985	131518	14248	38359	184125	194318	-10193	0.93
2921-22	1282303	156441	16670	44881	217991	233123	-15131	1.18

Source : Methodology described in paragraph 6.3

25. In the Open Seminar, in which an earlier draft of this paper was presented, it was rightly pointed out that while measuring tax evasion, cost of enforcement also should be factored in. Our suggestion to tap own tax revenue potential more intensively is through better co ordination with

Central tax collecting agencies, profiling of trades effectively using information available and intrusive action in unavoidable cases, Cost of tapping additional potential is expected to be negligible.

26. The average growth rate of GSDP at current, 2004-05, prices is 17 percent from 2007-08 to 2015-16. There is a decline in growth rate of nominal GSDP to 12 to 13 percent recently. It is expected that with a higher capital outlay and also with migration remaining stable even after crude oil price decline (as pointed out in Economic Survey 2016, finmin.nic.in), investment and consumption driven real GSDP growth is expected to return to 8-9 percent and with expected inflation of 7 percent, the nominal GSDP growth is estimated at 17 percent. In case of a growth slowdown, corresponding changes would be there as can be seen from Endnote 24.

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