TAXABLE CAPACITY AND TAX EFFORT
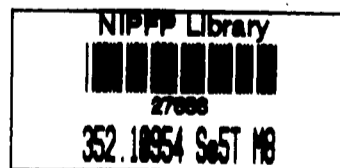# OF STATES IN INDIA

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PREFACE

The National Institute of Public Finance and Policy is an autonomous non-profit organisation whose primary functions are to undertake research, consultancy and training in the field of public economics and related areas.

The present report is the outcome of a study commissioned by the Ninth Finance Commission on the taxable capacity and tax effort of the States in a comparative framework, employing the representative tax system approach. The reference period of the study is 1982-83 to 1984-85, the latest years for which data on tax bases are available. It is a painstaking attempt to estimate the potential of major taxes levied by the States and construct an index of tax effort individually for the major taxes as also in the aggregate. The study takes note of the existing literature on the subject and tries to improve on the earlier studies both in terms of methodology as also empirical content. It is hoped the study will be found useful by the Commission and also evoke interest of scholars interested in this field.

The study was planned and conducted by Tapas Sen and V.B. Tulasidhar, Senior Economists, under broad supervision of the Director.

The Institute is grateful to the Ninth Finance Commission and their officials especially the Member-Secretary and the Economic Advisor for their consideration and very valuable help to the Study Team throughout. Grateful thanks are also due to the State governments for their unstinted cooperation and courtesy.

The Governing Body of the Institute does not take any responsibility for the views expressed in the report. That responsibility lies with the Director and more particularly the authors.

A. BAGCHI
September, 1988   Director

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ACKNOWLEDGEMENTS

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I. INTRODUCTION

1.Genesis of the study

A major point of departure in the terms of reference of the Ninth Finance Commission which has been the subject matter of considerable attention and debate is the requirement " to adopt a normative approach in assessing the receipts and expenditures on the revenue accounts of the States and the Centre." The need for a normative approach had long been recognised as imperative in the determination of the revenue needs of the States as also the Centre as otherwise the exercises of the Finance Commission tended to be confined to the task of filling the gaps in the State budgets largely on the basis of projections of past trends. Absence of any normative assessment of the revenue gap, it has been widely felt, has led to fiscal irresponsibility all round and gross inequity in the allocation of federal funds. Setting up acceptable `norms´ of revenue and expenditure in an operational form for the States with wide diversity in their economic structure, level of development and administrative capability is a formidable task. Nevertheless a beginning in that direction is imperative in the interests of equity and efficiency in the system of devolution of federal funds in the country. The present study is an attempt at estimating normative yields from

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the major tax heads of the States as also the aggregate tax revenue and, as a corollary, at preparing an index of tax effort put in by the States. The study was undertaken at the instance of the Finance Commission and follows the broad lines laid down by the Commission in this regard. The tasks set for the study in the terms of reference were:

a. "Estimation of taxable capacity and efforts of the States employing the representative tax system method;

The terms of reference further enjoined that:

b. "The estimation of potential should be done for the aggregate as well as all major State taxes, namely (i) agricultural taxes, (ii) stamp duty and registration fees, (iii) sales taxes, (iv) State excise duty, (v) taxes on motor vehicles, goods and passengers, (vi) entertainment taxes and (vii) electricity duty;

c. "Potential from each of the taxes should be estimated at proper level of disaggregation; and

d. "Estimation of tax potential may be done by averaging the tax bases for three years from 1983-84 to 1985-86 or three latest years for which data on tax bases are available."

In the course of discussions which took
place subsequently it was indicated that the NIPFP
study need not cover electricity duty in view of
its substitutablilty with electricity tariffs and
therefore the need to cover them together. It was
agreed that it would be difficult for NIPFP to
analyse electricity tariff along with all the
taxes within the given time frame.

2. Scope and coverage

The study presented here was intended to
cover all the States of the Indian Union including
the recently formed ones. Considering, however,
the disparities in the socio-economic structure of
States like Arunachal Pradesh or Mizoram as
compared to States like Maharashtra or Haryana,
assessment of taxable capacity and tax effort has
been attempted by appropriate groups.

The period to which the study pertains is
generally the years 1982-83 to 1984-85. However,
in some cases it was necessary to use information
for other years either in lieu of, or in addition
to, the information for the specified period.

The coverage in terms of individual taxes is
as per the terms of reference subject to the
qualification mentioned above. Remaining taxes
were grouped under "other taxes" and treated
together. The term "total own tax revenue" in our
study, it should be pointed out, excludes
electricity duty and profession tax even where it

is levied. The details are provided in the relevant chapters.

3. Plan of the report

This report is divided into five chapters. In Chapter II, a brief review of the available literature, both theoretical and empirical, is presented. Chapter III discusses, tax by tax, the methodology adopted to carry out the estimations, given the availability of data. Chapters IV and V reports the estimated taxable capacities and tax effort, along with a few observations by way of comments.

II. MEASURING TAXABLE CAPACITY AND TAX EFFORT

1. Introduction

Taxable capacity has been in use as a concept for economic analysis and policy purposes for more than a century now and, as is to be expected, has undergone some metamorphosis over the years. Initially, the term `taxable capcity´ denoted a limit upto which the government can draw away resources from the private sector for public use, generally defined as a certain part or percentage of income or expenditure or whatever other variables individual authors considered to be proper indicators of taxpaying capacity. By their very nature, such calculations were arbitrary or based on some subjective judgment as to what could be regarded as tolerable or fair, but there was little justification for choosing one limit over another. The two World Wars which saw a sharp rise in tax levels almost everywhere called into question the validity of such conceptualisation of taxable capacity as tax to Gross Domestic Product (GDP) ratios shot up far above the highest imagined limit. The concept thus suffered an almost fatal eclipse in the immediate post-war days.

However, a related concept that had evolved by then and was found useful for several

operational purposes was that of relative taxable capacity. The earlier concept of absolute taxable capacity could be used for even one taxpayer. Relative taxable capacity, however, defined taxable capacity of one (or a group of) taxpayer(s) in relation to others, at least another. This is the concept that has stood the test of time well and is currently in use.

In a nutshell, this concept implies the use of the values for variables representing the tax base and actual tax collections across a set of tax-paying units and establishment of a relationship between the two. With a normatively determined relationship, given values for the variables representing tax bases, taxable capacities are estimated. In the case of absolute taxable capacity the normative relationship is completely exogenous, e.g., an arbitrary linear relationship. In the case of relative taxable capacity, the norm is derived from the actual relationships that hold across the units, e.g., an average relationship, the maximum, or the minimum.

Even with only the concept of relative taxable capacity in use (henceforth, this is what we refer to when we use the term taxable capacity), the actual estimation of the same can be done in different ways. The two methods which are normally used are usually termed the aggregate regression (AR) method and the representative tax system (RTS) method. These are briefly outlined below.

2. The aggregate regression (AR) method

This is based, as the title suggests, on the estimation of a (usually multiple) regression equation which attempts to explain the variations in a tax variable across different entities or units (like countries or States), either absolute values or normalised, i.e., standardised in some form, using independent variables hypothesised to be the `ultimate determinants´ of taxable capacity. The choice of independent variables depends partly on theory or the supposed nature of relationship of the tax in question and the variables, and partly on their ability to explain the variations in the dependent variable. The choice of the form of the equation, however, depends entirely on the fit. The purpose generally is to explain the variations as far as possible by capacity variables which are beyond the control of the tax authorities, and ascribe the rest of the variations to tax effort by the government concerned. This method is normally used for aggregate tax effort analyses, both inter-country and inter-State[1], but its use for more disaggregated analyses is also possible.[2]

There are two major problems with this method. The first arises due to the fact that all such regressions contain a stochastic or random error term, the value of which remains unknown. Ascribing all unexplained variations in the dependent variable to tax effort, therefore, is likely to confuse between stochastic error and tax effort. The second problem is more applied in

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nature. Generally, all applications of this method use an aggregate income variable as a capacity factor _ GNP or GDP in the case of an inter-country analysis and SDP in the case of an inter-State one. It has been pointed out that income is a variable that can represent demand for public goods and therefore tax effort as well. While the best one can do about the former problem is to make sure that the list of capacity variables is as exhaustive as possible, the second problem can be avoided by choosing such variables carefully enough.

3. The representative tax system (RTS) approach

This is essentially a method applicable to disaggregated analyses only. Popularised by the U.S.Advisory Commission on Intergovernmental Relations (ACIR)[3], it involves identifying actual bases or when the actual bases cannot be easily designated, suitable proxy bases for individual taxes, and then calculating an effective tax rate for each tax as a ratio of actual tax revenue to the actual or proxy base. A normative tax rate is then derived from these effective tax rates over the observations (e. g., an average) and applied to the actual or proxy bases used. This yields the taxable capacity or the tax potential. Individual tax potentials can then be summed across taxes to arrive at the aggregate tax potential. By measuring actual aggregate collections against aggregate capacities so derived, an index of aggregate tax effort can then be arrived at.

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This method is not free from problems either. First, under this approach, the relationship between tax base and tax yield relationship is sought to be achieved through effective tax rates which are only ratios. As a result, base-to-yield elasticity of the tax is constrained to be unity. In actual practice, this assumption may not hold. Second, the disaggregated nature of the method implies a massive data requirement, both on tax yields and on tax bases, the latter being often more difficult to fulfil. Generally one is forced to fall back on proxy bases, but data on reasonably good proxies are also not easy to obtain. Third, calculation of individual effective tax rates implicitly assumes a certain amount of independence of the yield the individual taxes from one another. This is hardly likely to be true, but the seriousness of this limitation can be minimised by explicitly adjusting individual tax bases for this factor.

A problem common to both the approaches mentioned above relates to the fact that in both cases one is essentially doing a cross-sectional analysis which assumes that the States are structurally homogeneous. More specifically, when one postulates that a particular average tax-to-base relationship should hold for all the States (that is the normative prescription implied in the tax effort comparison), one ignores the possibility that it may be impossible for that State to achieve even the average level because of structural deficiencies.

Taking the last problem first, under AR approach, the remedy lies in estimating the regressions with pooled cross-section and time series data rather than with only cross-section data. For, pooled data help to incorporate the influence of structural differences at least to some extent. In the case of RTS method, the problem can be tackled by a sufficient degree of disaggregation and use of direct bases rather than proxy bases. This solution suggests itself once it is recognised that in our context, most of the structural limitations arise in terms of aggregate base-to-tax relationships, but not when the bases are sufficiently disaggregated.

One way of getting round the major problems of both the above methods is to use a judicious blend of the two, which has been successfully demonstrated by Thimmaiah (1979). The present study relies on one or the other of the two alternative ways depending on the limitations of data and relevant factors.

4. Review of relevant studies

In this section, we briefly review some important studies which form part of the available literature on the subject and some recent studies carried out in the Indian context.

Among the studies analysing tax effort made in the last twenty years or so, the notable ones are those by Lotz and Morss (1967), Chelliah (1971), Bahl (1971), ACIR (1962), and Bahl (1972).

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The first three employ the AR approach, while the last two use the RTS approach. Except the ACIR study, all of the above were undertaken by the staff of the Fiscal Affairs Department of the International Monetary Fund (IMF) to estimate tax effort of a group of countries. Usually, in the studies employing the AR approach, the determinants of tax ratio included per capita Gross National Product (GNP), its distribution by origin (especially share of mining sector), level of openness of the economy given by its exports/imports relative to GNP, level of urbanisation, and literacy rate. The ACIR study, on the other hand, used detailed information on individual tax revenues and relevant bases (actual wherever possible and best available proxies otherwise) of American States, which has now come to be established as the standard RTS approach. Similar studies with minor variations have now been carried out in many countries including Canada, Australia, and India.[4]

There have been a number of studies in India using the AR approach, probably due to the relatively modest data requirements. These include studies by Reddy (1975), Dwivedi (1980), Sen (1983), and Oommen (1987). It is evident from the findings of these studies that the final results, i.e., the rankings by tax effort, are quite sensitive to the specification of the regression adopted for the purpose, especially those not at the extremes. Unless one is fully confident of the correctness of the adopted specification, this fact alone causes some

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uneasiness. Quite apart from this, aggregative studies have rarely attempted to verify whether or not the tax revenue data themselves are strictly comparable. As an example, the case of entertainment taxes and profession tax can be cited. The revenue from these taxes do not figure in the tax revenue of the States in all cases and one must take an explicit position in this regard. There is some uncertainty regarding the best way to normalise the tax revenue as well. Normalisation by either population or State Domestic Product (SDP) have been adopted, but it is difficult to choose any particular variable for normalisation a priori. With alternative definitions of the dependent variable, multiple regressions can give differing results which then raise the problem of choice. This particular problem has not been satisfactorily solved yet. The problem is less acute when results in the two cases are similar, but this need not necessarily be the case always.

The two well-known Indian studies using somewhat different versions of the representative tax systems approach are Thimmaiah (1979), and Chelliah and Sinha (1982). Since these two studies directly influence the methodology adopted in the present study, it is necessary to discuss them in some detail.

Thimmaiah analysed the taxable capacity and tax effort of four States - Andhra Pradesh, Karnataka, Kerala and Tamil Nadu - and one Union Territory - Pondicherry. Due to the high degree of

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uniformity in the tax systems of these units, use of RTS was permissible without making too many adjustments. He used both the ACIR direct method as well as regressions, the first to estimate average effective tax rates and the latter to estimate marginal effective tax rates. Both were used to estimate taxable capacities separately. Somewhat surprisingly, the tax bases used, however, were often different for the two approaches.

Coming to Thimmaiah's analyses of individual taxes, his analysis of sales tax seems to be open to several objections. For, using taxable sales turnover as the tax base (for the ACIR method) underestimates the true tax base as it does not include evaded turnover, turnover not covered due to inefficiency, and turnover not taxed due to lack of tax effort by the State. Hence, the differences in tax effort as estimated would only reflect _statutory_ differences, i. e., differences in tax rates, differences in tax incentive schemes, and similar other factors. An identical problem arises with the regression method also due to the use of the same base. However, use of per capita consumption expenditure mitigates the problem to some extent, but not fully, as several elements within the category of intermediate inputs are left out and thus the tax base gets underestimated.

Similarly, use of the value of assets as declared in the documents as tax base for revenue from stamps and registration fees is theoretically

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incorrect, due to the prevalence of severe understatement of property values to evade stamp duties.

In the case of motor vehicles tax, while Thimmaiah notes that distribution of motor vehicles by type is important for revenue determination, this insight is not incorporated in the empirical work, which relies only on the total number of vehicles, perhaps due to non-availability of disaggregated data on motor vehicles.

As far as the other taxes are concerned, it would appear that Thimmaiah's study tried to adopt the best possible approach under the given circumstances. Overall, this was the first such study in India going into considerable detail and contained a number of insights useful for subsequent studies like the present one.

The other study by Chelliah and Sinha is relatively recent but still about a decade old. This was also a detailed and exhaustive study, using almost exclusively the direct method which, as noted earlier, is difficult to apply when proxy bases are in the nature of determinants of the base and the tax yield is determined by factors not included in the specification even after all practicable disaggregation. An example of this problem is provided by the treatment of `Land Revenue and Taxes on Agricultural Income´. Though the study appreciates that productivity of land and distribution of land holdings are important

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determinants of land revenue, the direct method obliges them to ignore these factors. A critique of the general approach of this study would also include objections to the calculation of average effective rates (AER) as simple averages rather than weighted averages. After all, if individual States decide to tax particular bases relatively more heavily than other bases, there is no reason why this fact should be ignored. The sensitivity of the results to the use of weighted averages is enough to make this a real issue.

A difficult problem posed for any study of this sort is that arising from the absence of a major tax in any particular State as a matter of or as a result of conscious policy. In India, an example is provided by the prohibition policy of Gujarat, which earns practically no revenue from State excise duties as a result. This has been the case, off and on, in Tamil Nadu also. The study under discussion tackles this problem by taking both potential and actual revenues as nil. One can, however, argue that the absence of this tax might have resulted in more intensive exploitation of some other tax, and taking into account only the existing taxes would then overestimate the tax effort of such States. The ACIR team ran into this problem in its first such study, and the position they took was that "In an effort to make the system representative of current practice in the States the criterion adopted was to include in the system any tax employed by States where more than half the Nation's population lives." (ACIR, 1962, p. 32). The present study accepts this position

rather than the one implied by Chelliah and Sinha as a rule of thumb, but when a policy like prohibition results in nil tax revenue as well as nil tax base, it becomes quite difficult to apply. This point is discussed further in the next chapter.

It has been pointed out that the analysis of sales tax in the study by Chelliah and Sinha is biased against poorer States (Rao, 1983). The reason for this, it is argued, is the failure of the study to disaggregate the total cash consumption expenditure as between essential commodities and luxuries. Due to the higher proportion of expenditure on essential articles in poorer States which are generally taxed lightly, their tax effort would show up as relatively low if aggregate cash consumption expenditure is used as the tax base for sales tax, which generates the bulk of the revenue of the States.

Rao also points out that the study fails to take into account total gate receipts in cinema halls and instead relies on seating capacities as the tax base for entertainment taxes; this can result in inaccuracy as occupancy rates can systematically vary between States. While the point is valid (in fact, the authors of the study also recognise it), it must be mentioned here that short of a survey, no independent information on gate receipts can be obtained. Also, due to the increasing use of the compounding system of tax assessment (which ignores the occupancy rate), the point loses its merit.

As will be evident, the present study owes a
heavy debt to the above two studies. The tax bases
identified by them have served as the points of
departure for this study. An attempt has been made
here to make refinements wherever deemed
necessary, and to take due account of changes in
tax systems that have taken place since then as
well as in the data availability. The next chapter
outlines the approach followed for individual
taxes.

NOTES

1. Examples of the former are Lotz and Morss (1967), Bahl (1971) and Chelliah (1971). For a sample of the other type, see Mushkin (1944), ACIR (1962) and Akin (1972).

2. One of the early studies by Cornell (1936) actually analysed the taxable capacity of school districts in the U. S.

3. ACIR (1962) was the first well-known study on this subject. Since then, they have regularly published reports on taxable capacities and tax effort of the States in the U.S.A. every ten years.

4. See Lynn (1968), Commonwealth Grants Commission (1974) and Chelliah and Sinha (1982).

III. DETERMINATION OF THE TAX BASES :
METHODOLOGICAL ISSUES

In this chapter we discuss the individual taxes as they prevail in various States and the actual as well as the ultimate bases of these taxes. Given the availability of information regarding the tax bases we then identify the bases which seem to be best suited for our purpose, and provide reasons for our choice.

1. Determination of sales tax base: overall considerations

For the purpose of estimating the revenue potential from sales tax we have chosen the ACIR method discussed in the preceding chapter. In order to use this method one has to identify carefully the different components of the tax base which are similarly treated and the revenue accruing therefrom. In our context, the major issue is the proper identification of sales tax base. Before we discuss our approach to the identification of appropriate tax base for sales tax, it is necessary to specify clearly the items included in the revenue from sales tax in view of the fact that its coverage is not uniform across States. In some, sales tax is levied in the form of a general sales tax (GST) on all commodities including motor spirits while in some States sales tax on motor spirit is levied under a seperate statute. For our purpose we include purchase taxes, and sales tax on motor spirit in general sales tax even if they are levied under

separate statutes. However, Central sales tax (CST) is excluded considering the fact that States are not in a position to raise the rates of CST beyond the prescribed limit of 4 per cent. General sales tax, of course, includes collections through additional sales tax, surcharges, fees and fines as well as other revenues.

While identifying the sales tax base, one has to be clear about certain basic features of the sales tax systems prevalent in different States in order to devise an appropriate method of determining the tax base. Barring a few exempted goods and goods on which additional excise duty is charged, sales tax is levied practically on all commodities irrespective of their use, provided the sale takes place within the given State. Goods sold for consumption or use within a particular State are taxed generally at higher rates under the States' Sales Tax Acts and those sold on inter-State trade are taxed (usually at a uniform rate of 4%) under the Central Sales Tax Act. Further, goods transferred to other States on consignment basis or exported outside India are not taxable. Another important feature of sales taxation in India is that barring a few unimportant/residual goods, in most States all other commodities are taxed only once either at the point of first sale or at the point of last sale in the long chain of transactions through which goods pass from production stage to the stage of ultimate consumption.

All these features have important bearing on the choice of the tax base(s). Since `resales´ (that is, sale by intermediate dealers) in the case of goods taxed at only one point, sale of exempted goods and goods on which additional excise duty is leviable, consignment transfers, and export sales (including sales at one point prior to exports) are not taxable, sales turnover data compiled by sales tax departments cannot be used straightaway as tax base as these data are quite often not cleaned to exclude transactions on which sales tax is not leviable. Even if the turnover data are properly cleaned to exclude all exempted transactions, it may still not reflect the potential base of tax due to varying scopes of exemption and varying degrees of evasion in different lines of trade in different States. For this reason one has to identify the tax base independently, which would approximate the true potential base in each case and at the same time exclude all transactions which are outside the purview of the sales tax system.

It is often presumed that SDP or some of its components are reliable proxies for the sales tax base. This presumption is also not tenable for the simple reason that the production base, which essentially determines the level of SDP and its components, cannot be treated as sales tax base because the level and composition of consumption expenditure of a State is influenced also by the earnings of its citizens from other parts of the country or from abroad. Further, consignment transfers and export sales are not taxable. The

extent of the influence of these factors on the tax base differs markedly between States and within a State between different lines of production.

A better alternative is to approach the base of sales tax from the expenditure (consumption use) side. This approach overcomes the limitations arising from inward and outward flow of incomes and consignment transfers and export sales to a considerable extent. But it fails to reflect the true tax base in certain circumstances. Table 3.1 summarises the alternative ways in which trade can take place and indicates the instances in which expenditure and production approaches either reflect or fail to reflect the tax base. It is clear from the table that the expenditure approach reflects the true tax base in almost all cases except where direct sale takes place or when there is vertical integration in the production process. While the production approach reflects true tax base in the cases where direct sales take place, it fails in almost all other types of transactions including vertical integration cases. Thus, as between the two alternatives, the expenditure approach is evidently superior for estimating the sales tax base.

1.1 Identification of the sales tax bases: Once the relative superiority of the expenditure approach is accepted, the next step is to identify the total taxable expenditures in different States at a fairly disaggregated level. Since sales tax

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TABLE 3.1

| Transactions | Influence on the base | | | | Influence on Tax Revenue | | Remarks | |
| | Production | | Consumption | | | | Consumption approach | Production approach |
	State A	State B	State A	State B	State A	State B		
1. Produced in State A Consigned to State B	+	⍰	⍰	+	⍰	+	Reflects	Fails
2. Produced in State A and exported	+	⍰	⍰	⍰	⍰	⍰	Reflects	Fails
3. Produced in State A sold on inter-State sale to State B for resale	+	⍰	⍰	+	+	+	Reflects	Reflects in CST collection of A Fails in GST of A
4. Produced in State A sold directly to consumer in State B	+	⍰	⍰	+	+	⍰	Fails	Reflects
5. Produced in State A and consumed there	+	⍰	+	⍰	+	⍰	Reflects	Reflects
6. (a) Produced in State A exempted there but taxed in State B (in this case inter-State sale attracts no tax)	+	⍰	⍰	+	⍰	+	Reflects	Fails
(b) Produced in A but exempted there sold to consumer in B directly (because it is taxed in B)	+	⍰	⍰	+	⍰	⍰	Fails	Fails
7. Vertical integration case Produced in State A used in State B	+	⍰	⍰	+	⍰	⍰	Fails	Fails

Note: ⍰ denotes no change and + denotes positive change in the base

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is levied on practically all commodities, this approach should cover all types of expenditure, namely, private final consumption, final commodity consumption of government administration , gross fixed capital formation of government administration , consumption of raw materials and component parts by the industrial sector (both private and public), non-agricultural inputs (fertilizer and pesticides) used by agricultural sector and gross fixed capital formation in both the private and the public sector enterprises.

The average incidence of sales tax on the various components of taxable expenditures identified above varies significantly. This arises on account of two factors. First, the final consumption goods are generally taxed at higher rates than intermediate and capital goods primarily to avoid diversion of trade and flight of capital and also partly to minimise the cascading effect. Second, even within a broad category of expenditure, the constituent elements are taxed at differential rates to subserve the objectives of equity and efficiency. For instance, within private consumption expenditure, luxuries are taxed at a higher rate as compared to other commodities. Similarly, fuels are taxed at a higher rate in the intermediate goods category. Thus, the taxable capacity of a State depends not only on the magnitude of the base but also on its composition. Further, the structural differences in the tax base which arise, to a large extent, on account of differences in the level of development also provide useful insights into the influence of

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the level of development on the taxable capacity. Therefore, in order to take into account the influence of the base structure on taxable capacity, it is necessary to compute tax potential, as far as possible , from certain groups of similarly taxed commodities in each broad category of expenditure or at least from broad categories of tax base and then sum the tax potential of individual components to arrive at the aggregate potential.

The level of disaggregation one can possibly choose depends on the availability and reliability of data on tax bases as well as on sales tax revenue. Typically, fairly reliable data on the broad components of tax base indicated above are available. In the case of some of these components, information on their constituent elements is also available. But the picture is less encouraging in the case of commoditywise sales tax revenue data. Only a few States compile these data on a regular basis. We have been fortunate to have access to such data to a greater extent than previous studies in this field; even so, it should be pointed out that there is considerable variation in both quality and quantity of the data, i.e., the level of disaggregation, across States. While some of the States collect and compile this information in a systematic fashion directly from the dealers or from tax returns, others have data based on informed guesses/ sample surveys/ incomplete information. In view of these problems it was difficult to rely on the disaggregated

commoditywise sales tax data made available by the
State governments for this study. Considering the
limitations of these data we have confined our
analysis to very broad components of sales tax
base. The details of base categories used are
discussed in the next chapter.

2. Land and agricultural taxes

Under this category, we include land
revenues, and agricultural income taxes. Since in
many cases land revenues include an element of
irrigation charges, one ought to include all
irrigation rates (even if it is shown as a non-tax
revenue) under this head. However, in the present
study this was not necessary; if such revenues
were not included in tax revenue because they did
not appear in the budget as tax revenue, they
would presumably be included in non-tax revenue.
The collections from land revenue proper are
uniformly low as compared to total revenues. But
in some States, agricultural income taxes do yield
a substantial amount.

The potential yield from land revenues
depends ultimately on the productivity of land,
subject to the qualification that its distribution
also plays an important part, as most States
exempt a certain minimum landholding from land
revenue. The base for agricultural income taxes
is also the same, as the productivity of land
determines income. With compounding, the
distinction between the two taxes practically
disappears. Even with plantation crops, the

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productivity of land in terms of value ought to reflect taxable capacity. However, it is much easier to tax large estates of plantation crops compared to other agricultural land, and the cost of collection is also much lower, making it feasible to administer a tax on plantation income efficiently. This factor is not reflected in either productivity or income from agriculture and needs to be taken into account separately. Hence, we postulate the following regression to determine the potential for land and agricultural taxes:

$$LAT = f(PROD, SLH, SDPA, D),$$

where

LAT = land and agricultural taxes,

PROD = the ratio of SDP from agriculture to net sown area,

SLH = percentage of small landholdings in total rural land holding,

SDPA = SDP from agriculture, and

D = dummy variable for States with substantial amount of plantation income.

3. Stamp duties and registration fees:

Strictly speaking, due to their nature, stamp duties and registration fees do not fully qualify as `tax´ due to the quid pro quo element involved. However, by convention these have been

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included in tax revenue and do form an important
source of funds. Hence, for the present purposes
it becomes important to look into the States'
capacity for raising these levies also.

The obvious bases for these sources of
revenue are respectively the frequency of recourse
to the judiciary by the citizens and the value of
property transferred. While the use of the former
as the base was ruled out because of data
problems, data regarding the value of properties
transferred, though available, are rendered
unusable due to severe underestimation of reported
property values. Hence, we had to look for proxy
bases for both of the above levies, in which non-
judicial stamp duties and registration fees
dominate in the matter of revenue yield.

A relatively recent survey on asset-
holding carried out by the NSSO for the Reserve
Bank of India (RBI) was useful information for
deriving the base of this revenue source as one
can hypothesise that the stock of assets would
determine the volume of asset transactions at
least to some extent. Data on indebtedness of
households in the abovementioned survey also
included data on mortgages, which have been used
to arrive at the base for this levy. Since
transfers of financial assets are an important
source of revenue from this head, the size of
stock exchange(s) in the State is also relevant.
The ACIR (1962) study had considered and rejected
this variable as transfers need not take place
only in stock exchanges. But in India, as a matter

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of fact, stock transfers rarely take place in places which do not have a stock exchange. Hence, we believe our use of this variable would not be regarded as improper. Thus, three capacity variables have been used in this study to assess the revenue potential from stamp duties and registration fees in a multiple regression as indicated below:

$$SRF = f(AH, MORT, SES),$$

where

SRF = Stamp duties and registration fees collections,

AH = asset holding (land, buildings and financial assets),

MORT= value of mortgages, and

SES= number of shares traded in stock exchange(s) in the State.

4. State excise duties

Receipts under this head usually consist primarily of revenue from taxes on various kinds of liquor. To a lesser extent, they also include revenue from sale of liquor, licence fees and various types of charges relating to liquor. Although this head contains other receipts like duties on narcotics, toilet and medicinal preparations containing excisable items like opium or alcohol, the bulk of the collections under this head are liquor related. The obvious base for this tax is, therefore, consumption of liquor.

Generally, production, movement and sale
of liquor of all kinds are closely controlled by
the Excise department of the States, and it was
therefore possible to obtain data on consumption
of different types of liquor from all the States.
However, revenue data were generally not
classified by type of liquor. This ruled out
application of direct ratios to calculate average
effective rates on different types of liquor. But
this factor was too important to be ignored since
the tax incidence varies widely as between
different varieties of alcoholic drinks. Hence, we
decided to adopt the multiple regression
technique. The function postulated is:

EXC = f(BEER, IMFL, CL), where

EXC = revenue from excises,

BEER = consumption of beer,

IMFL = consumption of India made foreign
liquor, and

CL = consumption of country liquor.

5. Motor vehicle taxes

The taxes on motor vehicles in the States
do not have a uniform pattern. While usually it is
a periodically collected tax the amount of which
differs depending on the type of vehicle, in some
States (Rajasthan, for example) the tax is
collected in a lump sum at the time of
registration. Also, in several States passenger
and goods taxes are not separately levied, but
merged with motor vehicle taxes with suitably
enhanced rates. We have tried to get around the

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latter problem by taking these two taxes together. As for the problem arising from the collection of the tax in a lump sum form, we have not made any adjustments for our purposes as this system was not operative during our reference period. However, its relevance for forecasting purposes needs to be noted.

The obvious base for this tax is the number of motor vehicles, for which data are available. Since the tax rates are different for different types of vehicles, particularly due to the merging of passenger and goods tax with motor vehicles tax, the distribution of vehicles as between different categories assumes importance. Also, though the base for passenger tax is essentially fares paid, and for goods tax the volume of goods traffic, de facto bases are the numbers of buses and trucks as most States have allowed compounding for reasons of administrative ease for both these taxes. Hence, we estimate the following multiple regression to calculate the capacity of States to raise revenues from this tax:

$$MVT = h(NO2, NOP4, NOTX, NOB, NOT, NOO),$$

where

MVT = collection from motor vehicles taxes including passenger and goods taxes,

NO2 = number of two-wheelers,

NOP4 = number of cars,

NOTX = number of taxis including tourist taxis,

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NOB = number of buses,

NOT = number of trucks, and

NOO = number of other vehicles.

In the case of this tax, a multiple
regression has been used only because of the fact
that disaggregated revenue data by types of
vehicls are not available. Hence, the direct ratio
method can be employed only at the cost of
ignoring the distribution of vehicles by types
which we do not consider advisable.

6. Entertainment taxes

Under the head `entertainment taxes´, we
have included entertainment taxes proper, show
taxes, taxes on advertisements, betting taxes and
totalizator taxes. The major part of the revenue,
however, comes from entertainment taxes. In this
case, we found the practices in different States
to vary quite markedly. Many States earmarked the
revenue from this tax, net of cost of collection,
for local bodies while one State (Kerala), had
delegated the responsibility for collecting this
tax entirely to local bodies. We believe that as
long as a tax is being collected by most State
governments it must come within the purview of a
tax effort analysis. This should not create any
inequity as the higher estimate of taxable
capacity, if any, resulting from this in the case
of a State where it is collected by the local
governments can be neutralised by suitable
adjustments on the expenditure side. In the case
of Kerala, the present study takes into account

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the revenue from entertainment taxes raised by local bodies for the purpose of assessing the taxable capacity and tax effort with respect to this particular tax. Accordingly, for estimating aggregate taxable capacity and tax effort the revenue from this tax has been taken into account. Thus, the overall tax effort of Kerala should not be adversely affected. However, an indication of its tax effort is provided after excluding this tax as well.

The relevant bases for these taxes are number of shows held and total gate collections. For betting tax and totalizator taxes, the relevant bases are the total amounts of bets placed. Data on these direct bases were not available. Hence, the following proxy bases were used in a multiple regression to arrive at the revenue potential from entertainment taxes:

$$ET = g(NOCT, TSC, Y, D),$$

where

ET = total entertainment taxes,

NOCT = number of cinema theatres in the State,

TSC = total seating capacity in the theatres,

Y = per capita SDP, and

D = dummy for presence of horse-racing venues.

The per capita income variable was included to take into account inter-State differences in admission rates which are likely to

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vary systematically with per capita income. The reasons for the inclusion of the other variables need no explanation.

7. Other taxes

Apart from the taxes specified above, there are a number of taxes which are levied by only some States. We have tried to merge most of such taxes with one of the major taxes, depending on the base of the tax. However, that still leaves out some taxes levied by State governments that are not covered in this way.

As explained in Chapter I, electricity duty is not included in this study. Among other taxes yielding substantial revenues are profession tax and entry tax. As far as the former is concerned, the general practice is to delegate it to the local bodies and hence we have not made any attempt to assess the potential of profession tax at all. Entry tax, where it is in operation, is essentially a substitute for octroi duties, and is passed on to local bodies. Thus, it does not really indicate tax collection by the State government. Hence, this has also not been considered by us. The rest of the taxes have been grouped under the residual category of `other taxes´. Given the mixed nature of this category, we decided to relate it to per capita SDP only.

8. Aggregate taxable capacity

The aggregate taxable capacities of the States are arrived at by adding up the capacities from individual taxes or groups of taxes. The actual tax revenue (with the exclusions noted above) as a ratio of the taxable capacity (or potential tax revenue) yields the index of aggregate tax effort. In the case of Kerala, while we work out the tax effort in the same way as in the case of other States, an indication of the tax effort excluding entertainment tax is also provided. In any case, since tax-wise potentials have been provided below one can combine them in any fashion one likes.

9. Grouping of States

Since grouping of States can affect `average/marginal effective rates´ and thus their relative taxable capacities, it assumes some significance for tax effort studies. Such groupings can be done using several criteria - level of SDP, structure of the economy (industrial/ agricultural), geographical location, or size of the State. One constraint, however, should be borne in mind. The purpose of a study like this is to make a comparative study of the States, and too many groups are likely to defeat this purpose, as each would then be compared with only a few similar States. As long as one adequately takes into account State-specific constraints on taxation reasonably well, constructing many groups should not be necessary.

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After considering the pros and cons of introducing
this device, we decided to have only two groups:
one consisting of the North-Eastern States (except
Assam), and Himachal Pradesh, Jammu & Kashmir and
Sikkim, and the other consisting of the rest. In
other words we have a separate group for `special
status´ States and no more.

IV. ESTIMATION OF TAXABLE CAPACITIES

We now present the results regarding
taxable capacities of the two groups of States
indicated earlier by individual taxes and finally,
after summing up, their aggregate taxable
capacity. The generation of the data that were
not available are also explained at the
appropriate places. In particular, some of the
base data were not available for a few States.
Using our judgment, we have dealt with these
problems in one of the following two ways:

(a) the base data were estimated on the
basis of either related information for
the same years or base information for
some out-of-the-sample period(s);

(b) States for which the necessary data on
revenue were not available were not taken
into account while computing average
effective rates or the regressions;
however, the average effective tax rates
or the regression coefficients were
applied to the relevant tax bases of those
States too to estimate their taxable
capacities.

As far as the regressions are concerned,
their functional forms were decided upon using
statistical tools, given the explanatory(base)
variables. The ultimate specifications were also

chosen , to some extent, on statistical grounds. However, the set of independent variables were chosen out of the relevant set specified in the preceding chapter, - no new variable was introduced at this stage.

The results that follow are generally based on averages for the 3-year period 1982-83 to 1984-85 to even out fortuitous fluctuations in the data. In some cases, the tax base data refer to only one year as the same were not available for the three years. These have been pointed out at the appropriate places. Also, we have used cross-section cum time-series data when the analysis demanded it and the data were available.

1. Sales Tax

As indicated in the previous chapter, sales tax potential has to be estimated separately for similarly taxed components of the tax base in order to capture faithfully the influence of the base structure on the aggregate tax potential. While it is obviously advisable to take disaggregeted tax base and revenue of a tax item by item the level of disaggregation one can possibly afford depends on the availability of reliable information on the structure of the tax base and the revenue in the requisite detail.

After carefully evaluating the commoditywise sales tax data furnished by the States and the tax base data we were able to collect, it was decided to confine the assessment

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of sales tax potential to sixteen States and to the following five broad expenditure (base) categories: (i) Private final consumption-food, (ii) Final consumption expenditure- non-food, (iii) Expenditure on purchase of inputs (excluding petroleum products) by manufacturing and non-manufacturing sectors, (iv) expenditure on petroleum products and (v) unclassified goods. Broadly, items (i) & (ii) cover the final consumption expenditure of the household sector and the government sector of which the former consists mainly of necessities. Item (iii) consists of expenditure on inputs (intermediate consumption) and capital goods, which are generally taxed on similar lines. Item (iv) covers petroleum products consumed for both final consumption and intermediate consumption. Item (v) is essentially a residual category consisting of commodities which fall in one of the first three categories.[1] This classification of sales tax base and revenue should adequately reflect the impact of the composition of the base on the tax potential[2]. While further disaggregation of the base and revenue would make for further refinement, given the limitations of data, particularly the commoditywise revenue statistics, further disaggregation might undermine the reliability of the results. Our study relates to the average of the three year period ending 1984-85, the latest year for which most of the data on tax base are available. The details of commoditywise tax revenue data obtained from the States and the construction of the tax base under

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the five expenditure categories mentioned earlier
are set out below. Further details regarding data
adjustments are given in appendix Table A.2.

1.1 Commoditywise revenue data:- Out of the
sixteen States, we were able to obtain information
on commoditywise sales tax revenue from thirteen.
Haryana and Punjab do not have any information on
commoditywise sales tax revenue while such
information as is available for Bihar is
inadequate for our purposes. Of the thirteen
States which have furnished commoditywise data,
Andhra Pradesh, Karnataka, Rajasthan and Uttar
Pradesh systematically collect the information at
a fairly disaggregated level and on a continuous
basis. Goa, Tamil Nadu and West Bengal also
furnished time series data but their
classification is not detailed to the required
extent. However, for these seven States,
information was obtained for all the three years
ending 1984-85 (Table A.1). In the case of the
remaining six States, either the information does
not relate to the reference period of this study
(Assam, Gujarat, Kerala) or it does not cover all
the three years (Madhya Pradesh, Maharashtra and
Orissa). In these cases it was assumed that the
revenue composition remains stable in the short
run and therefore the proportions of revenue from
particular groups of commodities calculated from
the available data were used though, in some
cases, the information relates to years falling
outside the reference period (vide the last column
of Table A.1). This, however, should not be
regarded as a major shortcoming as the stability

assumption holds good particularly since very
broad expenditure categories were taken, whose
composition is unlikely to change drastically in a
short span of three to four years.

As regards the quality of information,
some States (Gujarat and Madhya Pradesh) had
cautioned that the information furnished by them
was based on informed guesses and judgments.
Similarly, it was pointed out that the information
furnished by Maharashtra was based on a sample
survey. These limitations forced us to choose a
rather low level of disaggregation to minimise
possible errors.

The commoditywise revenue data have been
regrouped according to the tax base categories
indicated above (Statewise details are given in
Appendix Table A.2) and summed up to arrive at the
revenue accruals from the respective categories.
However, in the case of petroleum products, use
was made of the data furnished by the Ministry of
Petroleum and Natural Gas on the sales tax paid by
the petroleum companies to various States. This
information was found to be much more exhaustive
than the information furnished by the States. As
the production and distribution of petroleum
products are controlled almost entirely by a
handful of public sector petroleum companies, the
authenticity of this information cannot possibly
be questioned. Using the basewise revenue data
and the corresponding tax bases, which are
discussed below, the tax potential from each
component of the base was derived. However, the

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information relating to Goa was used only for
estimating its tax potential; as it was a Union
Territory during our reference period, it was
sufficiently different from the other States to
distort the average effective tax rates, if
considered for the computation of the same. The
aggregate tax potential for sales tax has been
arrived at by summing up the potentials from
individual components of the base.

**1.2 Estimation of tax potential from individual
components of sales tax base:-** As noted above,
tax potential has been estimated separately for
five broad components of the sales tax base, viz.
(i) food products (ii) non-food, non-fuel final
consumption goods, (iii) inputs excluding
petroleum products and capital goods, (iv)
petroleum products and (v) other unclassified
goods. For this purpose we have used, wherever
possible, the average of tax bases for the 3-year
period ending 1984-85 and the average revenue
collected during this period.

1.2.1 Food Products:- For estimating the sales
tax base of revenue accruing from food products we
have relied primarily on the information available
in the latest (38th) round of the NSS consumer
expenditure survey results of the Central sample.
Our efforts to obtain State sample data proved
abortive as several States have not been able to
complete the tabulation of State sample results.
The data relate to the calendar year 1983. Since
information is not available for the remaining
years of our study period we had to base our

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estimates on data for one year only.

To arrive at the sales tax base from the
NSS data certain adjustments have to be made to
the aggregate food expenditure. Details of these
adjustments are set out in Table A.3. For
instance, foodgrains grown for self-consumption
cannot be taxed. Since the proportion of cash
purchases in the total foodgrains consumption is
likely to vary considerably across States, only
cash consumption has to be taken into account.
Information on cash consumption were obtained from
the National Sample Survey Organisation. From the
cash consumption figures we deducted the value of
foodgrains distributed through the public
distribution system. Similarly, consumption of
sugar, which is an additional excise item, has
been excluded from the tax base. The average
revenue from food items for the 3-year period
ending 1984-85 was divided by the base so
estimated to arrive at the effective tax rates.
The average of these effective tax rates obtained
for 12 States for which data were available, was
taken as the average effective tax rate for all
the States in the first group as a whole, which
was in turn applied to the tax base of each State
to compute their respective revenue potential from
this tax. The results are presented in Table
4.1.1.

1.2.2 Non-food non-fuel consumption:- Details of
computation of the base for the revenue from
commodities coming under this category of
consumption are given in Table A.4. Non-food NSS

Table 4.1.1

SALES TAX REVENUE POTENTIAL FROM FOOD PRODUCTS

(Rs. Lakh)

States	Consumption	Actual Revenue	Effective Rate(%)	Potential Revenue
1.A.P.	407573	4731	1.16	3990.7
2.ASM	137749	319	0.23	1348.8
3.BIH	549987	N.A.	N.A.	5385.1
4.GOA	4379	N.C.	N.C.	42.9
5.GUJ	310195	2102	0.68	3037.2
6.HAR	126558	N.A.	N.A.	1239.2
7.KAR	312544	5456	1.75	3060.2
8.KER	246761	6051	2.45	2416.1
9.M.P.	314220	2797	0.89	3076.6
10.MAH	539935	2266	0.42	5286.7
11.ORI	180243	1132	0.63	1764.8
12.PUN	168227	N.A.	N.A.	1647.2
13.RAJ	273301	3841	1.41	2676.0
14.T.N.	405490	374	0.1	3970.3
15.U.P.	686313	9478	1.38	6719.9
16.W.B.	434403	2892	0.67	4253.4

Average effective rate: 0.98

N.C. Not computed   N.A. Not available

consumer expenditure data (38th round) have been
used to estimate the private final consumption of
commodities in this category and data on commodity
purchases of State governments obtained from
unpublished worksheets of the Central Statistical
Organisation have been taken for estimating public
consumption at State government level. Ideally,
one should also take into account the commodity
purchases made by the Central government in
different States, but such data are not available
for recent years. Latest available information
published in the Directory of Government Purchases
relates to 1975-76. Instead of using data of such
vintage, it was decided to ignore this factor,
although it has to be recognised that it could
affect the results to some extent by
underestimating the tax base of States where
Central government purchases are concentrated.
While arriving at the tax base for this category
of goods, clothing and tobacco products have been
excluded from the NSS expenditure data as they
consist mainly of additional excise duty items.
Fuels are also excluded from private consumption
expenditure as these have been treated separately.
Similar adjustment to exclude government
expenditure on fuels could not be made due to lack
of information in this regard. Results of tax
potential estimated for this component of the
sales tax base are given in Table 4.1.2.

1.2.3. Non petroleum inputs and Investment Goods:-
The base for sales tax revenue from non-petroleum
inputs and investment goods has been constructed

Table 4.1.2
SALES TAX REVENUE POTENTIAL FROM
NON-FOOD NON-FUEL PRODUCTS

(Rs. Lakh)

States	Consumption	Actual Revenue	Effective Rate(%)	Potential Revenue
1.A.P.	190667	4322	2.27	5704.2
2.ASM	41087	1067	2.60	1229.2
3.BIH	126670	N.A.	N.A.	3789.6
4.GOA	6423	N.C.	N.C.	192.1
5.GUJ	121704	4491	3.69	3641.0
6.HAR	57823	N.A.	N.A.	1729.9
7.KAR	125482	8101	6.46	3754.0
8.KER	122030	3049	2.50	3650.8
9.M.P.	137410	2895	2.11	4110.9
10.MAH	261342	12540	4.80	7818.5
11.ORI	53187	1286	2.42	1591.2
12.PUN	89317	N.A.	N.A.	2672.1
13.RAJ	128829	2156	1.67	3854.2
14.T.N.	188938	2770	1.47	5652.4
15.U.P.	306174	6663	2.18	9159.8
16.W.B.	154399	5794	3.75	4619.1

Average effective rate: 2.99

N.C. Not computed   N.A. Not available

by using information available in the Annual Survey of Industries (Factory Sector), National Accounts Statistics and The Technical Note on the Sixth Five Year Plan. In the definition of inputs we have included the consumption of coal as fuel but excluded the consumption of petroleum products (some of which are fuels and others industrial non-fuel inputs). Broadly, the base as defined above consists of: (i) the sum of non-fuel material input consumption (excluding petroleum based inputs), estimated consumption of coal, fixed capital formation in the manufacturing sectors (including generation of electricitiy) and (ii) estimated value of inputs consumption in construction, transport, communications, banking, and other services (excluding public administration). Information on Statewise consumption of material inputs, fuels consumed and capital formation in manufacturing sector are available in the Annual Survey of Industries (Factory Sector) Summary Results. Since petroleum products are treated separately, the consumption of petroleum based inputs (non fuel petroleum products) given in Indian Petroleum and Natural Gas Statistics, have been excluded from the material input consumption data. To take into account input consumption in the agriculture sector, we have included the value of fertilizer consumption. In the case of non manufacturing sector, information on intermediate consumption is not readily available for certain sectors. We have estimated the input consumption using sectoral estimates of SDP (comparable data) made available by the CSO and the technical

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coefficients given in the A_Technical_Note_on_the
Sixth_Plan_of_India. Details of the procedure of
estimation are given in the Appendix to this
chapter. Table A.5 presents the broad composition
of this tax base. Using this information, tax
potential flow inputs and investment goods is
estimated and presented in Table 4.1.3.

1.2.4 Petroleum Products:- For estimating the
revenue potential from this category of goods we
did not rely on the actual revenue data furnished
by the State governments, which is incomplete in
several cases. As mentioned earlier, unlike other
goods, production and distribution of petroleum
products is almost entirely in the hands of a few
public sector petroleum companies which come under
the purview of the Ministry of Petroleum and
Natural Gas. The Ministry publishes, annually,
detailed productwise consumption of petroleum
products in each State along with prevailing
productwise sales tax rates. It also gives the
total sales tax (including Motor Sprit Tax) paid
by the petroleum companies to each of the State
governments. Since both aggregate revenue and
consumption data are available from one reliable
source, one can easily compute Statewise effective
rates of tax on the aggregate petroleum
consumption. However, this source does not give
the breakup between CST and GST/MST. For our
purpose we assumed that the proportion of revenue
from petroleum products in the Total Sales Tax
would remain the same even for GST/MST and
accordingly adjusted the actual revenue from

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Table 4.1.3
SALES TAX REVENUE POTENTIAL FROM
INPUTS AND INVESTMENT GOODS

(Rs. Lakh)

States	Consumption	Actual Revenue	Effective Rate(%)	Potential Revenue
1.A.P.	658259	10098	1.5	8476
2.ASM	130184	950	0.7	1676
3.BIH	608102	N.A.	N.A.	7830
4.GOA	50383	N.C.	N.C.	649
5.GUJ	1029518	13281	1.3	13256
6.HAR	301769	N.A.	N.A.	3886
7.KAR	452649	8712	1.9	5728
8.KER	289899	4787	1.7	3732
9.M.P.	529280	11009	2.1	6814
10.MAH	1918753	16934	0.9	24705
11.ORI	179628	1955	1.1	2313
12.PUN	461893	N.A.	N.A.	5947
13.RAJ	323455	5168	1.6	4165
14.T.N.	908092	3213	0.4	11692
15.U.P.	995194	14402	1.5	12813
16.W.B.	999959	8711	0.9	12875

Average effective rate: 1.29

N.C.Not computed   N.A. Not available

Table 4.1.4
SALES TAX REVENUE POTENTIAL
FROM PETROLEUM PRODUCTS

(Rs. Lakh)

States	Consumption	Actual Revenue	Effective Rate(%)	Potential Revenue
1.A.P.	42904	6439	15.0	4501
2.ASM	12807	1129	8.8	1343
3.BIH	44246	3681	8.3	4641
4.GOA	12284	N.C.	N.C.	1289
5.GUJ	114946	9147	8.0	12058
6.HAR	27195	841	3.1.	2853
7.KAR	33107	5372	16.2	3473
8.KER	29479	7138	24.2	3092
9.M.P.	34993	3061	8.8	3671
10.MAH	149417	11006	7.4	15674
11.ORI	15005	965	6.4	1574
12.PUN	47595	1428	3.0	4993
13.RAJ	27623	3460	12.5	2898
14.T.N.	85550	11105	13.0	8974
15.U.P.	73110	8559	11.7	7669
16.W.B.	52535	5756	11.0	5511

Average effective rate: 10.49

N.C.Not computed   N.A. Not available

petroleum products. Using this adjusted revenue data and the information on consumption of petroleum products we estimated the Statewise effective rates of tax and by applying the average rate on the base, arrived at the tax potential for each of the states (Tables A.6 and 4.1.4).

1.2.5 Other non-classified goods:- As indicated earlier, this category is essentially a residual one, as the commoditywise revenue data did not exhaust the entire general sales tax (GST) collections in all the States. Since the revenue data from petroleum products is almost exhaustive, commodities from which the residual revenue comes almost certainly belong to one of the three non-petroleum goods categories mentioned above. For this reason we have used the sum of the first three categories of the sales tax base discussed above (non-petroleum tax bases) as the base for this category (Table A.7). Since we have used the effective tax rates of only 12 major States to estimate the average effective rate on each of the non-petroleum base categories, the same norm has been used to estimate the average effective rate of tax for this base as well. Results obtained by using this method are given in Table 4.1.5.

1.2.6 Aggregate Sales Tax Potential:- Aggregate sales tax potential has been arrived at by summing the potential of the five base categories (Table 4.1.6). This table gives aggregate actual revenue, aggregate potential revenue and tax effort index (which is simply the ratio of actual and potential revenue in percentage terms). The results show sharp differences in the tax effort

put in by different states. Tax effort is the highest in Kerala (effort index 145) and lowest in Bihar (effort index 57).

Table 4.1.5

SALES TAX REVENUE POTENTIAL FROM

MISCELLANEOUS GOODS

(Rs. Lakh)

States	Consumption	Actual Revenue	Effective Rate(%)	Potential Revenue
1.A.P.	1256499	17281	1.4	14305
2.ASM	309020	3425	1.1	3518
3.BIH	1284759	17151	N.A.	14627
4.GOA	61185	N.C.	N.C.	697
5.GUJ	1461417	15010	1.0	16638
6.HAR	486150	9384	N.A.	5534
7.KAR	890675	5453	0.6	10140
8.KER	658690	8559	1.3	7499
9.M.P.	980911	5387	0.6	11168
10.MAH	2720029	48549	1.8	30967
11.ORI	413058	3083	0.8	4702
12.PUN	719437	18121	N.A.	8190
13.RAJ	725585	8074	1.1	8260
14.T.N.	1502520	43646	2.9	17106
15.U.P.	1987681	10795	0.6	22629
16.W.B.	1588761	9506	0.6	18087

Average effective rate: 1.14

N.C.Not computed   N.A. Not available

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Table 4.1.6
OVERALL TAXABLE CAPACITY - SALES TAX

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	42870	36976	115.94
2.ASM	6890	9116	75.58
3.BIH	20833	36272	57.43
4.GOA	2539	2869	88.50
5.GUJ	44031	48630	90.54
6.HAR	10225	15242	67.09
7.KAR	33093	26255	126.04
8.KER	29585	20391	145.09
9.M.P.	25149	28840	87.20
0.MAH	91295	84451	108.10
11.ORI	8422	11945	70.51
12.PUN	19548	23449	83.36
13.RAJ	22699	21853	103.87
14.T.N.	61108	47395	128.93
15.U.P.	49897	58992	84.58
16.W.B.	32660	45346	72.02

2. Land and agricultural taxes

The specification of the equation posited in the previous chapter for deriving the potential of this tax is designed to take into account the main factors which could affect the revenue from this source. It is, however, well known that practically none of the States is able to carry out regular settlement operations necessary to tap the potential of land revenue. But we preferred not to prejudge the issue and retained the productivity variable for this reason. The percentage of small landholdings (1.2 hect.) in total landholdings of households - the variable SLH - was intended to capture the revenue impact of exemptions from land revenue in different States.

As it turned out, coefficients of both these variables behaved very erratically in our estimations, with their significance and even the mathematical signs changing with small changes in the specification. They were ultimately judged to be not of much use in explaining the yield from land revenue. Hence, we ended up with the same specification as in Chelliah and Sinha(1982), with the difference that whereas they had used estimates of plantation income to adjust SDP from agriculture for their ratios, we used a regression with a dummy variable for plantation income. The estimated regression based on the data for the States in the first group is as follows:

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$$\log(LAT) = -8.73 + 1.25\log(SDPA) + 1.20 \ D$$
$$(-5.39) \quad (9.62) \qquad (4.51)$$
$$R^2 = 0.8926 \qquad F = 54.0194$$

(t values in parentheses).

The taxable capacities and tax effort indices of the 16 States comprising the first group are given in the table below.

Table 4.2

Taxable capacity – Land and Agricultural taxes

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	1921	1728	111.17
2.ASM	2247	1741	129.06
3.BIH	1646	1647	99.94
4.GOA	14	13	107.69
5.GUJ	1562	1052	148.48
6.HAR	370	602	61.46
7.KAR	1563	3610	43.30
8.KER	1909	1988	96.03
9.M.P.	1530	1510	101.32
10.MAH	2798	1938	144.38
11.ORI	1270	868	146.31
12.PUN	315	976	32.27
13.RAJ	2012	1284	156.70
14.T.N.	2045	1644	124.39
15.U.P.	2913	3400	85.68
16.W.B.	7552	5042	149.78

Two States which show pretty low tax effort are Haryana and Punjab, which is quite natural, given their tax revenue. Of course, these States do mobilise resources from the agricultural sector, but through instruments other than tax revenue which ought to show up in the non-tax revenue effort. Karnataka also exhibits a low tax effort which can perhaps be traced to the exemptions granted to plantation as well as non-plantation landholdings with respect to both land revenue and agricultural income tax. Except West Bengal and Assam, the tax efforts of other States with substantial plantation income are quite low. The highest tax effort with respect to these taxes is recorded by Rajasthan followed by Gujarat. The former is among the poorer States while the latter is among the relatively rich States. The tax efforts, even when all the 16 States are looked at, do not show any pattern vis-s-vis income – either total or in the agricultural sector.

The high tax effort recorded by Orissa could be due to the fact that the revenue from land revenue includes the yield from cess on royalty on mines and minerals. No adjustment has been made here to take this into account and this should be kept in mind while assessing the performance of the States.

3. Stamps and registration duties

As indicated in the preceding chapter, to explain the revenue from stamps and registration duties, we specified a function which contains

variables which can serve as proxies for the true tax base consisting of primarily property transactions and mortgages. Due to non-availability of the data regarding the flows, we have used the related stock figures instead – the presumption being that there is a direct relationship between the stocks and the flows. The data set unfortunately does not include all the States and hence we were forced to exclude Goa from the States in the first group while estimating the regression.

In the estimate of the equation specified above (using alternative functional forms) the `size of stock exchange´ variable was found to be insignificant statistically in all cases. Reestimations after dropping this variable improved the statistical quality of the regression significantly. Hence, our preferred equation on which taxable capacity estimates of stamps and registration duties are based does not contain this variable. The functional form chosen on purely statistical grounds is log-linear. The estimated regression is as follows:

$$\log(SRF) = -1.78 + 0.38\log(AH) + 0.49\log(MORT)$$
$$(-0.77) \quad (1.67) \qquad\qquad (3.17)$$
$$R^2 = 0.8157$$
$$F = 26.5473$$

(t values in parentheses)

The following table reports the actual tax collection, taxable capacity and tax effort of

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Table 4.3

Taxable capacity -Stamps and Registration duties

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	6383	5657	112.84
2.ASM	460	501	91.74
3.BIH	3557	1698	209.51
4.GOA	132	*	*
5.GUJ	4072	3738	108.94
6.HAR	2845	2477	114.83
7.KAR	4487	5997	74.81
8.KER	4704	5635	83.48
9.M.P.	3535	4438	79.65
O.MAH	6193	7389	83.81
11.ORI	1253	1799	69.63
12.PUN	4480	4726	94.79
13.RAJ	1901	3416	55.65
14.T.N.	9313	5644	165.00
15.U.P.	11612	8203	141.56
16.W.B.	4348	4220	103.02

* Not computed.

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the individual States based on the above regression.

In the above table the two extreme cases are worth noting. One is the case of Rajasthan, with a tax effort of only 55 per cent. This is a large and poor State. At the other extreme is Bihar, which also has similar characteristics but the tax effort is more than 200 per cent. We do not venture an explanation of this result, but only note the curious nature of it.

4. State excise duty

The explanatory variables included in the specified equation to derive the potential of State excise duties given in the preceding chapter consists of the direct bases of the tax. The stochastic element comes in due to the fact that we do not have figures of tax revenue by different bases of the tax and that there can actually be further disaggregation of the tax bases. That is why a regression has been estimated in this case.

After trying out different functional forms, the following was chosen as the best for the States in the first group:

$$\log(EXC) = -12.90 + 0.13\log(BEER)$$
$$(-4.70) \quad (0.66)$$
$$+ 0.15\log(IMFL) + 1.05\log(CL)$$
$$(0.76) \quad (4.26)$$
$$R^2 = 0.8747, \quad F \text{ value} = 23.275.$$
$$(t \text{ values in parentheses})$$

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Based on this estimated equation, the following table gives the taxable capacity, actual tax revenue and an index of tax effort by individual States.

TABLE 4.4

Taxable capacity - State Excise

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	28986	32804	88.36
2.ASM	505	840	60.15
3.BIH	3534	4189	84.36
4.GOA	527	*	*
5.HAR	7361	5533	133.04
6.KAR	15566	12064	129.03
7.KER	5471	5138	106.47
8.M.P.	9400	8496	110.64
9.MAH	15400	24394	63.13
10.ORI	1576	2051	76.83
11.PUN	15580	10115	154.02
12.RAJ	6453	5253	122.85
13.T.N.	19084	33120	57.62
14.U.P.	14726	6689	220.16
15.W.B.	6914	7322	94.43

* Not computed.

For this·tax the taxable capacity of Goa
was not estimated. The regression was estimated
after excluding Goa from the observations. The
reason was that its inclusion caused a serious
deterioration of the statistical quality of the
regression in terms of standard errors of
regression coefficients as well as the estimate,
as data pertaining to Goa were in the nature of
outliers. Even after estimating the regression in
this way, application of the regression
coefficients to the tax base data for Goa yielded
an implausibly small amount of taxable capacity.
On closer scrutiny, we found that the problem
arises due to the fact that all of Goa's liquor
consumption has been classified under either IMFL
or beer and no consumption of country liquor is
reported at all. The regression coefficients,
however, reflect the importance of country liquor
for excise revenue, the coefficient of which
dominates. Thus, without an estimate of the
consumption of country liquor, it was not possible
to estimate the taxable capacity of Goa
realistically.

In the previous chapter, we had mentioned
that though we would have preferred to estimate
the potential of this tax for Gujarat also, it was
not practible for the following reasons.
Prohibition policy is qualitatively different from
not employing a particular tax in that it obviates
the use of State excise duties to any significant
extent by removing the main tax base, i.e.,
consumption of liquor itself. Hence, unless one
can estimate the consumption of liquor assuming

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the absence of prohibition policy, estimation of State excise duty potential of Gujarat is not possible. Estimation of liquor consumption was not feasible as by its very nature, liquor consumption is a matter of habit and local customs and cannot be related to any other variable. Thus, we could not attempt any estimate of potential from this tax of Gujarat.

5. Taxes on motor vehicles

In this case, our original specification was adopted without any modification for the estimation of taxable capacity. While coefficients of certain variables did turn out to have statistically insignificant effect on tax revenue or a `wrong´ mathematical sign, a priori reasoning clearly pointed to the inadvisability of dropping them. After all, our explanatory variables were only different types of vehicles on road, each of which is taxed. Hence, dropping any of them would be theoretically incorrect as each contributes to the tax revenue.

Among different functional forms, the double-log format was statistically the best. The equation for the major States only (including Goa) is as follows:

$$\log(MVT) = -7.12 + 0.21\log(NO2) - 0.98\log(NOP4)$$
$$(-3.31)\quad(0.74)\qquad\qquad(-1.95)$$
$$+0.14\log(NOTX) + 0.66\log(NOB) + 1.32\log(NOT)$$
$$(0.72)\qquad\qquad(1.78)\qquad\qquad(2.51)$$
$$+0.22\log(NOO).\qquad\qquad R^2=0.9211,$$
$$(1.59)\qquad\qquad\qquad F=17.50.$$

(t values in parentheses)

The antilogs of the estimated values of the dependent variable directly yield the taxable capacity. The ratios of the actuals to the taxable capacities yield a measure of tax effort as given in Table 4.5 below.

It can be seen from the table that the range of exploitation of the potential with respect to taxes on vehicles in different States in our first group is from 58% in Bihar to 162% in Haryana. Similar variation marks two othern States viz., Assam (61%) and West Bengal (158%). Uttar Pradesh, Gujarat and Andhra Pradesh almost fully utilise their relative potential.

As noted already, the system of taxation of vehicles has started changing. In Rajasthan, for example, a one-time tax at the time of registration of a vehicle is now collected instead of the usual periodical payments under motor vehicles tax. In most States where Passenger and Goods Taxes are levied, a fixed periodical rate is the commonly applied now, rather than the tax based on fares/freight charged. The impact of these changes have to be carefully looked at

TABLE 4.5

Taxable Capacity - Taxes on Vehicles

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	7908	7798	101.41
2.ASM	813	1341	60.70
3.BIH	3053	5229	58.39
4.GOA	256	238	107.41
5.GUJ	10376	10320	100.55
6.HAR	6359	3917	162.34
7.KAR	6898	8143	84.71
8.KER	3262	2842	114.76
9.M.P.	4719	6386	73.90
10.MAH	15421	16853	91.50
11.ORI	2005	2108	95.11
12.PUN	5465	5849	93.44
13.RAJ	5611	3887	144.34
14.T.N.	8694	7278	119.46
15.U.P.	10940	10961	100.19
16.W.B.	8385	5298	158.27

before our results can be applied to the
forecasting of revenue for the short or medium
term.

6. Entertainment taxes

The data base in the case of entertainment
taxes was somewhat weak as indicated in Annex I.
As a result, a fair amount of estimation was
required to complete the data set needed for
assessing the revenue potential. To that extent,
our results are also relatively weak for this tax.
However, the data limitations were duly kept in
mind while estimating the taxable capacity of
different States and adopt methods suitably
evolved to take care of this problem.

The function postulated in the preceding
chapter for estimating the potential of this tax
used both the number of cinema theatres and
seating capacity, along with a dummy variable to
represent horse-racing venues and per capita SDP.
The first point to be noted in this context is
that the two theatre-related variables cannot be
used together, as in many cases seating capacity
has been estimated using the number of theatres.
In statistical terms, the correlation coefficient
of the two variables is high.

Given this constraint, we used these two
variables alternatively. The equations using
averages of the years 1982-83 to 1984-85 yielded
results of which the statistical quality were

rather poor in terms of standard errors,
explanatory power and other parametric tests,
irrespective of the functional form chosen. We
therefore decided to use pooled cross-section and
time-series data to estimate the equation. Even in
this case, we ran into a problem. The usual
procedure requires us to use dummy variables for
each State to account for qualitative differences
between States. This, however, could not be
adopted to estimate the regression in this case as
the correlation matrix was rendered near singular.
Hence, we estimated the regressions without these
dummies. Fortunately, this omission did not prove
very serious, as was shown by the test for
heteroscedasticity. The results also indicated
that the dummy for racing venues did not `belong´
in the equation and it was dropped. The regression
finally chosen by us as the most suitable is the
following:

log(ET) = -9.36 + 1.03log(TSC) + 0.50logY
         (-4.87) (16.31)   (2.52)
    R^2= 0.8689   F =135.92.

    This equation is based on data for 15
States coming in the first group. Kerala was
excluded as entertainment tax is collected there
by the local bodies and the difference in
performance as compared to other States is marked.
Also, the revenue figures were estimates made on
the basis of certain assumptions by us, which were
perhaps not very realistic. Their inclusion would
have distorted the equation estimated
considerably. This can be clearly seen from its

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tax effort index given below, which is calculated on the basis of the estimated regression. The taxable capacities presented in the following table are averages of three years' estimates for each State and the tax effort indices are estimted accordingly.

TABLE 4.6

Taxable Capacity - Entertainment taxes

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	3762	7079	53.14
2.ASM	390	765	50.97
3.BIH	911	1001	91.09
4.GOA	71	120	59.19
5.GUJ	3691	2481	148.75
6.HAR	800	495	161.55
7.KAR	3191	3480	91.69
8.KER	383	3740	10.25
9.M.P.	1960	1536	127.62
10.MAH	7472	6298	118.64
11.ORI	400	491	81.39
12.PUN	894	859	104.02
13.RAJ	1037	778	133.27
14.T.N.	4443	6320	70.30
15.U.P.	4912	2300	213.54
16.W.B.	3113	3048	102.14

It will be seen that the performance of individual States vary widely, even when Kerala is ignored. The striking feature of the tax effort index set out in the above table is that some States which have at least average tax effort with respect to other taxes exhibit a relatively low tax effort in the case of this tax. This is perhaps attributable to institutional factors affecting the revenue from this tax, as in several of these States the State Government has to hand over the tax collected to the local bodies after deducting collection charges. Thus, the absence of incentive to realise the full potential of this tax cannot be ruled out.

Uttar Pradesh exhibits a very high tax effort in entertainment tax - in fact, it ranks highest in tax effort in respect of this tax. This conforms to the general impression about this tax in the State (recall the recent cinema theatre strike against a very high tax rate on entertainment).

7. Other taxes

This category being residual in nature, in some States the revenue under this category was nil. However, that was not the case for all and hence it was necessary to calculate tax potential for this category too. The base, of necessity, had to be as broad as possible and we decided to use SDP for this purpose. Given the nature of this calculation we did not think that a regression was in order. Hence, only simple ratios were used. The following table gives the taxable capacities and

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tax effort indices in respect of this residuary
category calculated on the basis of average
effective rate.

As is to be expected from the
miscellaneous nature of `other taxes´, the tax
effort index varies widely across States. Some

TABLE 4.7

Taxable Capacity - Other taxes

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	160	507	31.55
2.ASM	132	176	74.94
3.BIH	11	429	2.56
4.GOA	0	20	0.00
5.GUJ	1852	469	394.53
6.HAR	0	185	0.00
7.KAR	823	372	221.13
8.KER	83	241	34.40
9.M.P.	23	418	5.51
10.MAH	4660	919	506.93
11.ORI	0	214	0.00
12.PUN	63	287	21.88
13.RAJ	188	292	64.34
14.T.N.	465	429	108.28
15.U.P.	0	771	0.00
16.W.B.	735	548	133.96

States actually have no revenue under this head at all while States like Maharashtra raise a sizeable amount of revenue from taxes which have not been classified under any of the major taxes. Finding a proper base for such a mixed bag is difficult, and so we adopted SDP as the base despite its limitations in explaining revenue potential pointed out earlier. While revenues under this head cannot be ignored, the absolute amounts of taxable capacity show that these are unlikely to influence total taxable capacity appreciably.

8. Total taxes

It is now possible to combine the above results pertaining to the individual taxes set out in the preceding paragraphs and estimate total taxable capacity for the States in the first group. Goa, however, could not be included due to the fact that it was not possible to assess its taxable capacity for all the components. Nevertheless, the estimates for the taxes which could be undertaken for this State may serve as an adequate pointer. The following table sets out the tax revenue, taxable capacity and tax effort of the remaining 15 States in respect of all taxes taken together.

It will be noticed that the total tax effort broadly follows the pattern obtaining for sales tax which is only to be expected given the dominant role of sales tax in the States' tax system. A State needs to put in considerable

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TABLE 4.8

Taxable Capacity - All taxes

State	Actual Revenue (Rs. lakh)	Taxable Capacity (Rs. lakh)	Tax Effort (%)
1.A.P.	99807	100366	99.44
2.ASM	14121	17165	82.26
3.BIH	42076	58997	71.32
~~4.GOA~~	~~3538~~	~~3260~~	~~108.54~~
5.GUJ	77~~688~~ 163	78269	~~99.26~~ 98.59
6.HAR	34825	35317	98.61
7.KAR	73483	67785	108.41
8.KER	47712	42290	112.82
9.M.P.	53596	58905	90.99
10.MAH	167908	166913	100.60
11.ORI	17913	22463	79.74
12.PUN	51424	51341	100.16
13.RAJ	40995	39156	104.70
14.T.N.	116842	113520	102.93
15.U.P.	100737	97052	103.80
16.W.B.	76932	84051	91.53

effort in raising the yield of other taxes to make up for any deficiency in sales tax, even if the slack happens to be slight.

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The highest tax effort is recorded by Kerala. Its tax efort index stands at 112 despite poor performance in entertainment tax. When entertainment tax is ignored, Kerala´s tax effort goes up to 122 per cent of the potential.

Apart from Kerala, the other States in the Southern part of the country have also recorded above average performances which is probably due to the fact that all of them have a very similar tax system based on the system prevalent in the erstwhile Madras presidency.

The lowest tax effort is that of Bihar. Other States recording a performance well below average are Assam, Orissa, and Madhya Pradesh, while Andhra Pradesh, Maharashtra, and Punjab exhibit near-average tax effort.

The dispersion in total tax effort is not very high which implies that the gaps in overall tax administration between States are probably getting narrower.

Tax effort indices show practically no systematic relationship with the level of income (SDP) of the States. However, the three States exhibiting the lowest tax effort are Bihar, Assam and Orissa, all of them being relatively poor States. This may suggest that our model perhaps could not capture the effect of income levels properly, but the evidence is too weak to warrant any definitive assertion. There are poor States

exhibiting fairly good tax effort (e. g.,
Rajasthan and Uttar Pradesh), while there are
relatively rich States exhibiting poor tax effort
(e. g., Punjab and West Bengal).

NOTES

1.   The information on consumption of
petroleum products and tax revenue from those
products is fairly exhaustive as it is based on
the data supplied by the oil companies in the
public sector. Hence, it is unlikely that any part
of the revenue from petroleum products would
figure in the residual category.

2.   In fact, we found that the sales tax base,
as defined and derived in this study, captures the
non-linear relationship between the level of
development and taxable capacity. Taking per
capita base (PB) as an indicator of taxable
capacity and per capita SDP (PS) as an indicator
of development we fitted the following equation:

   PB = f(PS)

Regression results show a significant non-linear
relation. The results are given below:

$$\log PB = -0.69 + 1.228 \log PS \qquad R^2 = 0.842$$
$$\qquad\qquad\qquad (8.64) \qquad F = 74.7$$

$$\log PB = 2.93 + 0.0002 PS \qquad R^2 = 0.849$$
$$\qquad\qquad\qquad (8.84) \qquad F = 78.5$$

Appendix on data adjustments
for the analysis of sales tax

The following adjustments have been made while classifying revenue from various base categories and for estimating different components of the sales tax base:

A. Adjustments made while classifying tax revenue:-

Revenue from motor vehicles and their components including tyres comes from vehicles used for personal transport and those used in the transport sector for public use and goods transport. The former falls in the final consumption expenditure category and the latter comes either under intermediate consumption category or under fixed capital formation. But none of the States provided revenue data in terms of these two broad categories of vehicles, without which it is difficult to classify the revenue from motor vehicles and their components. We have apportioned the revenue from motor vehicles and their components between non food final consumption and input consumption in the ratio of 0.275:0.725. The Planning Commission has assumed this proportion in their demand projection made for the year 1984-85 in the technical note for the sixth plan.

B. Adjustments / Estimates made for constructing

the tax base:-

1. Value of cereals released through the public distribution system has been estimated by multiplying the quantity distributed with the issue price (in the case of rice we have used the issue price of coarse variety).

2. Estimation of coal consumption: _Annual Survey_of_Industries_ gives only the total fuels consumed, which consist of petroleum fuels, electricity and coal. Out of these, consumption of electricity should be excluded as it does not attract sales tax. Petroleum products also have to be excluded as they are treated as a separate category for estimating tax potential. Without data on these three types of fuels consumed separately, we were forced to exclude all fuels consumed from the total inputs consumption. But exclusion of all fuels leads to underestimation of the base, as coal, a taxable good, is also excluded. To overcome this problem, we have estimated and added back the consumption of coal using the ASI total inputs data at two digit level of disaggregation and the technical coefficient of the corresponding sector given in the input-output table used for the Sixth Plan using the following formula:

Total coal consumption (C) = c^k_j

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in kth state

$$c^k_j = \frac{a_{cj}}{a_{ij}} * IC^k_j$$

where:

a_{cj} = technical coefficient of coal in jth sector,

a_{ij} = total intermediate consumption,

c^k_j = consumption of coal in jth sector in kth state.

IC^k_j = total inputs used in jth sector in kth state.

3.   To estimate the intermediate consumption of construction, transport and communications, financial services and hotels, one of the following methods has been used depending on the availabilty of information:

(i) Net $SDP\dfrac{IC}{NV}$, (ii) Net $SDP\dfrac{IC}{GO}\dfrac{GO}{NV}$, and

(iii) Net $SDP\dfrac{IC}{GV}\dfrac{GV}{NV}$, where

IC = intermediate consumption,

GO = gross output,

GV = gross value added, and

NV = net value added.

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The information to compute the above
ratios has been obtained mainly from the National
Accounts Statistics published by the C.S.O and
the A Technical Note on the Sixth Plan of India.
Comparable estimates of sectoral NSDP are from the
CSO.

V. ESTIMATES FOR GROUP B STATES

The States in the second group have mostly been carved out relatively recently and cannot be expected to display the same fiscal maturity as others. Arunachal Pradesh and Mizoram are yet to evolve a properly designed tax system. Hence, it was not possible to apply the methodology used for the other group of States to them or assess their tax potential in the same way. In fact, Arunachal Pradesh could not be covered in our study at all as it did not levy any of the taxes considered during the period of reference. For the rest, as far as possible, the methodology applied to the other group of States was followed, but extreme paucity of required data ruled out any detailed analysis in several cases, as pointed out at the appropriate places. For estimating the regressions we did not use the average for three years, but have used data for each year as one observation. This was done primarily to improve the degrees of freedom. Figures of actual tax revenue and taxable capacity in Table 5.1, however, refer to three-year averages.

1. Modifications in methodology

Due to the non-availablity of requisite information, it was not possible to estimate the tax potential from Sales tax separately for different categories of tax bases. Even the definition of the aggregate tax base had to be

slightly modified for these States; private consumption of foodgrains was excluded from the base as we could not get information on the cash purchases. Hence, the tax base of sales tax adopted for these States consists of: (i) private final consumption excluding foodgrains, fuels, and additional excise duty items, (ii) commodity purchases of State governments, (iii) non-petroleum input consumption in the manufacturing and non-manufacturing sectors, (iv) capital formation in the manufacturing sector, and (v) consumption of petroleum products. The analysis was carried out for only five States. The sources of information and the method of estimating the potential are the same as in the case of the States in the other group. The resulting estimates are given in Table 5.1.

2. Results

In this exercise the same specification of final equation for land and agricultural taxes was used as for the other group of States. However, the dummy variable was unnecessary as none of the States in this group have substantial income from plantation crops. The estimated equation which is preferred here is the following:

$$\log(\text{LAT}) = 1.98 + 0.00005 \text{ SDPA}$$
$$(7.66) \quad (5.03)$$
$$R^2 = 0.5585 \qquad F = 25.30.$$

(t values in parentheses)

On the basis of the above equation, the tax potential and tax effort of each State was

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computed. The results are presented in Table 5.1 along with those for other taxes.

Potential for stamps and registration duties could not be analysed for this group of States as values for the independent variables specified in the relevant equation were not available. The NSS survey from which we obtained the necessary data for this part of the analysis did not cover most of States in this group. Hence, we have considered this tax together with `other´ taxes which is a miscellaneous group of taxes.

Revenue from State excise depends, as for the other group of States, on consumption of different types of liquor. In many of the States in this group, the proportion of the consumption of liquor by military personnel is an important determinant of tax revenue because such consumption is taxed relatively lightly. However, we were not able to take this into account due to the lack of necessary data for all the States. The preferred regression equation for this tax is

$$(EXC) = -28.58 + 0.0012(BEER)$$
$$(-0.9744) \quad (19.17)$$
$$-0.0002(IMFL) +0.0005(CL)$$
$$(-3.32) \quad (10.04)$$
$$R^2 =0.9952, \qquad F \ value =689.46.$$
$$(t \ values \ in \ parentheses)$$

The estimated taxable capacity and tax effort index with respect to State excise for

Table 5.1

Taxable capacity of States in Group B

	Himachal Pradesh	Jammu & Kashmir	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura
Sales Tax								
(a) Revenue	1915.42	2687.67	177.35	319.14	*	*	*	405.29
(b) Base	67824.3	79116.1	13718.3	15516.7	*	*	*	16679.0
(c) Capacity	1627.9	1898.9	329.3	372.4	*	*	*	400.3
(d) Effort(%)	117.66	141.54	53.86	85.70	*	*	*	101.25
Land and Agr. taxes								
(a) Revenue	45.57	82.81	30.45	6.85	10.50	5.74	4.07	70.12
(b) Capacity	43.31	110.76	12.44	11.53	8.14	12.84	9.08	19.82
(c) Effort(%)	105.22	74.76	244.81	59.36	129.02	44.72	44.83	353.79
State excise								
(a) Revenue	1747.41	*	95.34	245.58	*	*	273.33	60.12
(b) Capacity	1744.33	*	82.64	286.71	*	*	276.82	32.77
(c) Effort(%)	100.18	*	115.36	85.65	*	*	98.74	183.45
Vehicle tax								
(a) Revenue	902.56	582.17	67.27	99.16	12.25	65.77	*	44.18
(b) Capacity	686.26	765.24	69.56	86.88	13.01	70.38	*	45.11
(c) Effort(%)	131.52	76.08	96.72	114.13	94.18	93.45	*	97.95
Entertainment tax								
(a) Revenue	78.21	253.00	51.48	29.87	8.26	18.95	16.81	35.99
(b) Capacity	37.50	140.00	69.98	18.07	10.68	30.60	17.17	65.85
(c) Effort(%)	208.55	180.71	73.56	165.29	77.26	61.95	97.90	54.65
Other taxes								
(a) Revenue	404.10	330.05	30.37	47.56	3.39	8.88	24.99	77.67
(b) Capacity	204.97	301.67	57.06	52.92	12.64	48.82	11.77	83.41
(c) Effort(%)	175.26	110.34	61.51	105.38	48.74	14.32	251.99	86.28

* Taxable capacity not computed

States in this group based on the above regression equation are set out in Table 5.1.

For entertainment taxes also we have used the same preferred specification as for the other group. However, unlike in the case of the other group of States, we did not include a dummy variable for racing venues in the case of this group as it was not relevant. The estimated equation is as follows:

$$\log(ET) = 1.6686 + 0.0001(TSC) + 0.0004Y$$
$$ (2.65) \quad (6.05) \quad\quad (1.26)$$
$$R^2 = 0.6812 \quad\quad\quad\quad\quad F = 19.23.$$

The taxable capacities estimated on the basis of the above regression are presented along with the tax effort of individual States in Table 5.1.

As for other taxes, including stamp duties and registration fees, no regression was estimated; instead, the direct ratio method only was used as in the case of the other group. The tax base, as in the case of the other group, is taken to be SDP. The taxable capacity and tax effort index of individual States of this group estimated on the basis of the average effective rate are set out in Table 5.1.

Table 5.1 does not give any idea of the aggregate taxable capacity or tax effort. That can be calculated only for the States for which

estimates of taxable capacity for all the elements of tax revenue are estimated. These are provided below:

Table 5.2. Total Taxable Capacity and Tax Effort of Group B States

(Rs. lakh)

State	Total Tax Revenue	Taxable capacity	Tax Effort(%)
Himachal Pradesh	5093.27	4344·27 ~~4615.27~~	117·24 ~~110.36~~
Manipur	452.26	620.98	72.83
Meghalaya	748.16	828.51	90.30
Tripura	693.37	647.26	107.12

These estimates though based on careful calculations, need to be taken with some caution. Casual observation would show that the States exhibiting above average tax effort are those which have been in existence as separate States for some time, while the others have attained Statehood relatively recently. It cannot be gainsaid that any administrative set-up needs some time to find its feet and settle down. This factor, unfortunately, cannot be taken account of within the framework of a tax effort study like this and perhaps some best judgement adjustment is

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called for before these results can be used for policy-making.

2. Limitations of the study

In the course of our analysis, we have drawn attention to certain limitations of this study. It may be useful to dwell on them a little more before concluding.

While assessing relative taxable capacity and tax effort of the States it should be kept in mind that the fiscal system contains several elements which do not always figure explicitly as tax. This is especially true when the public sector enters the field of economic activity in a big way. Pricing of the products of the public sector can also serve as an important substitute for taxation. Hence, in making any judgement on revenue effort, it is not enough to consider the revenue from taxes which are explicitly recognised as tax but also the revenue derived from non-tax sources. Also, in the matter of determination of grants on an equitable basis to do justice to both high revenue - high expenditure States and low revenue - low expenditure States, the total picture regarding the budget must be kept in view as otherwise the former may benefit unduly from a tax effort analysis carried out in isolation.

The methodology used in this study is a blend of direct ratio method used by ACIR and the regression method. Both have their limitations. The major limitation of the former is its

inability to take into account the fact that the relationship between the tax base and the yield is not always proportional and taxable capacity may increase more than proportionally with the growth in the tax base. In the regression method, on the other hand, the distinction between random errors in the equations and tax effort gets blurred.

Also, any tax effort analysis for the government at a given level has to contend with the fact that taxable capacities of various levels of government are not independent. Thus, in a State, when substantial revenue is raised at the local government level through, say, octroi, it is conceivable that the potential for sales tax on the items subjected to octroi is adversely affected. This study being a disaggregated one also suffers from the limitation that the interdependence between different tax bases and the degree to which they are exploited by even the same level of government is not taken into account. There is also the possibility that the taxable capacities of the States are not entirely independent of each other, especially when taxation is not based entirely on the destination principle. Thus the taxable capacity in the matter of sales tax on commodities consumed in a State but imported from another may be affected by the level of taxation of the commodities in question in the State of their origin. This is inevitable when the States of origin of the commodities are in a position to `export´ taxes to consumers in other States.

The limitations noted above are not all inherent in the methodology; some stem from the limitations of data. For a study like the present one with a high degree of empirical content, sufficient data of dependable quality are absolutely essential. While we have been more fortunate in this regard than the previous researchers in this field in India, we have been forced to adopt second-best methods at several points due to the lack of sufficient data, both on tax revenue and on tax bases. The analysis of almost all the individual taxes can be considerably improved once reliable disaggregated data are available for all the States. However, the limitations arising from the interdependence of tax bases as between different levels of government and between States cannot be got over fully. Problems of interdependence between bases as between the States and local governments can to some extent be mitigated by the fact that if any deficiency in tax effort shows up when a tax is collected in a State at the local level contrary to general practice, the expenditure side also will have corresponding compensatory reduction unlike in other States. However, the problem arising from `tax exporting´ is an intractable one.

These limitations need to be kept in mind while making any judgment on tax potential or tax effort of States with disparate economic structure and at varying levels of development.

Despite its limitations, it must be added, the exercises undertaken in this study have their use. To quote ACIR (1983), "....it is better to rely on less than perfect data than to ignore totally the importance of [tax base factors]. Many criticisms of RTS compare it with some unattainable ideal rather than to the real competitor, sole use of per capita [SDP]." (p.15, text within brackets substituted for the Indian context). This ultimately justifies an exercise of this kind. It is to be hoped that the findings presented here will be taken in that spirit.

ANNEX I
NATURE AND SOURCES OF DATA USED

Fairly disaggregated data on a large number of items are prerequisites for a study of the present kind. Also, the extensive use of data imply that the conclusions hinge heavily on the data used. It is therefore necessary to spell out the nature and sources of data that have been used in this study.

The tax revenue data were primarily collected from audited Finance Accounts of respective States. That is the reason 1984-85 has been taken as the last of the three years considered. Even for 1984-85, the abovementioned data were not available for a few States (e.g., Jammu & Kashmir, Assam). In such cases we have used the actual revenue figures reported in the budget.

Commoditywise sales tax revenue data were collected from the sales tax departments of individual States. These data were not compiled regularly in many States including Gujarat, Maharashtra, and Punjab. The available data for Punjab could not be used due to certain problems regarding their coverage and magnitudes. No data on commoditywise sales tax collection is compiled in Haryana at all. In Bihar, we could get data on

sales tax from a few major commodities only. For Gujarat and Maharashtra, data from surveys conducted in 1981-82 and 1982-83 respectively, regarding commoditywise tax yield have been used. The proportion of tax collections from each commodity group to the total collection has been applied to estimate commoditywise tax yield for other years in these two States.

In the case of Bihar, the collection figures for Central Sales Tax showed implausibly wild fluctuations, though the total sales tax collections did not. Hence, we substituted the Central Sales Tax collection figures from Finance Accounts by data on the same from the sales tax department, keeping the totals unchanged. Hence, the composition of the sales tax revenue as taken by us is not the same as in the Finance Accounts.

Data on other taxes also have been compiled from the same general sources, i.e., Finance Accounts and failing that, budget actuals. For Kerala, despite our best attempts we failed to obtain data on collection of entertainment tax by all the local bodies. However, we could obtain data on collection of this tax by Panchayats and we used that to estimate the total tax collection by assuming the same average per theatre tax collection in all areas.

Data on tax bases have been compiled from

figures provided by State governments, published data and some unpublished data.

The number of motor vehicles data are uniformly from State government sources, and mostly those on vehicles on road. However, for a few States, data on vehicles registered had to be used as the former set of figures were not available. Respective State governments have also supplied the data on consumption of different types of liquor, and on number and seating capacity of cinema halls. In a few cases, data on number of cinema halls were not available from government sources. In such cases, we used the data reported in CMIE, Basic Statistics Relating to the Indian Economy: States. Data on seating capacity were not available for all these States and a few others. In those cases we applied the average per theatre seating capacity in 1986-87, for which data are available from the subsidiary point (# 98) submitted by the States to the Finance Commission. The data on asset holding and mortgages are from published source: Sarvekshana, July 1985. The size of stock exchanges would have been best represented by the total transactions that took place under each stock exchange. These data, however, were not available and the data on number of different scrips quoted in individual stock exchanges as reported in the Bombay Stock Exchange Directory were used as proxies. The data on landholding patterns of households in individual States, and on net sown area are also

from published sources. While the first set is from Sarvekshana, July-October 1986, the second is from Fertiliser Statistics, various issues, published by the Fertiliser Association of India. The SDP data are from comparable SDP estimates published by the Central Statistical Organisation (CSO).

The data on materials and fuels consumed by the factory sector in different States are from Annual Survey of Industries. The data on cash consumption expenditure by households relate to the Central sample and were supplied by the National Sample Survey Organisation. These data are for the year 1982-83 (38th Round, NSS). The data on foodgrains sold through the Public Distribution System are from Bulletin of Food Statistics, various issues. The data on consumption of petroleum products are from Indian Petroleum and Natural Gas Statistics, published by the Ministry of Petroleum, Government of India.

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Table A1
COVERAGE OF COMMODITYWISE SALES TAX REVENUE DATA FROM NON-PETROLEUM GOODS
Rs. crore

STATES	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	Average#	Average GST (actuals)	Cove-rage (%)	Relates to the period
APR			170.4	187.1	245.5			201.0	428.7	46.89	1982-85
ASM						34.2	39.9	37.0	100.6	36.81	1985-87
BHR	20.9	28.7	41.9	41.6					208.3		
GUJ		170.4						170.4	357.2	47.71	1981-82
HAR									102.3		
KTK	171.6	235.6	251.6	295.4	355.0	432.6		300.6	409.6 TST	73.41	1982-85
KER	95.4					209.5		152.5	324.8	46.94	1980-81 & 1985-86
MPR			150.8	191.0				170.9	242.7	70.41	1982-84
MHR			235.3					235.3	793.8	29.64	1982-83
ORI				43.9	53.3	60.0		52.4	94.2	55.61	1983-86
PNB									195.5		
RAJ	62.3	76.3	110.3	126.9	132.3	145.7	159.5	123.1	227.0	54.25	1982-85
TND	35.3	43.0	52.5	62.5	75.7	81.4		63.6	611.1	10.40	1982-85
UPR	179.8	237.2	253.6	275.5	325.7	396.3		284.9	499.0	57.11	1982-85
WBN	113.5	143.1	150.3	175.4	211.1			179.0	326.6	54.79	1982-85

Notes: # Average of the available commoditywise data
       TST Total sales tax
       Blank indicates non availability of data.

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Table A2
SHARE OF DIFFERENT COMMODITY GROUPS IN GST REVENUE

	NON FOOD CONSPTN.	FOOD CONSPTN.	INPUTS +COAL	PETRO. PRODS.	MISC. GOODS
ANDHRA PRADESH	0.10081	0.11035	0.23555	0.15020	0.40310
ASSAM	0.15482	0.04626	0.13792	0.16385	0.49715
BIHAR	NA	NA	NA	0.17671	0.82329
GUJARAT	0.10200	0.04773	0.30163	0.20774	0.34090
HARYANA	NA	NA	NA	0.08227	0.91773
KARNATAKA	0.24479	0.16486	0.26325	0.16233	0.16476
KERALA	0.10307	0.20453	0.16182	0.24127	0.28931
MADHYA PRADESH	0.11513	0.11123	0.43775	0.12170	0.21419
MAHARASTRA	0.13736	0.02482	0.18549	0.12055	0.53178
ORISSA	0.15269	0.13445	0.23215	0.11462	0.36609
PUNJAB	NA	NA	NA	0.07303	0.92697
RAJASTHAN	0.09500	0.16920	0.22766	0.15245	0.35568
TAMIL NADU	0.04534	0.00612	0.05258	0.18172	0.71424
UTTAR PRADESH	0.13354	0.18995	0.28863	0.17154	0.21634
WEST BENGAL	0.17742	0.08855	0.26673	0.17624	0.29107

Table A.3

DETERMINATION OF SALES TAX BASE : FOOD CONSUMPTION
(1983)   Rs. crore

Sl. No.	Items	APR	ASM	BHR	GUJ	HAR	KTK	KER	MPR	MHA	ORS	PUJ	RAJ	T.N	UPR	WBN	GOA	
1	Total expenditure on food grains:	2621	1291	4377	1409	545	1925	1288	2763	2783	1754	632	1503	2668	5051	3303	21	
2	Total cash purchases of food grains:	1999	619	3676	958	301	1454	1143	1410	2134	1140	392	912	2188	2726	2396	18	$
3	Value of cereals distributed by PDS#:	238	102	160	52	31	116	287	80	239	86	49	18	288	175	524	12	$
4	Other food consumption excluding food grains:	2449	924	2109	2457	1118	1964	1710	2036	3856	807	1552	2107	2285	4815	2613	40	$
5	Consumption of sugar:	134	63	125	261	123	177	98	224	352	58	213	268	129	504	141	2	$
6	Sales tax base (items 2-3+4- a)	4076	1377	5502	3102	1266	3125	2468	3142	5399	1802	1682	2733	4055	6863	4344	44	$

Source: a) Information on the total consumer expenditure on various groups of commodities
              is obtained from: SARVEKSHANA   Vol. 9, No. 4, April,1986.
           b) Information of the cash purchases is obtained from the unpublished
              tables made available by the C.S.O.
           c) Information on public distribution of cereals is obtained from:
Note: BULLETIN ON FOOD STATISTICS   Ministry of Agriculture, New Delhi
           # Public Distribution System
           $ Cash consumption is estimated using the cash purchase ratio of Kerala
             which is agro-climatically similarly plased state.

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DETERMINATION OF SALES TAX BASE : TOTAL NON-FOOD NON-FUEL CONSUMPTION

Rs.crore

Sl. No.	Items	APR	ASSM	BHR	GUJ	HAR	KTK	KER	MPR	MHA	ORS	PUJ	RAJ	T.N	UPR	WBN	GOA
1	Total non-food private consumption:	3585	845	2480	2133	1019	2442	1905	2608	4448	990	1592	2415	3003	5930	2647	58
2	Consumption of tobacco products:	365	124	189	156	66	209	144	218	271	92	87	174	229	390	221	6
3	Consumption of fuels: (tereated seperately)	521	238	594	415	178	498	285	521	848	262	264	384	534	1247	552	6
4	Consumption of textiles:	879	153*	617	441	231	569	333	671	981	238	394	667	578	1438	512	11
5	Taxable private final consumption (items 1-2-3-4)#:	1741	330	1079	1121	544	1166	1143	1198	2348	407	848	1189	1662	2854	1363	35
6	Commodity purchases of State Government:##	166	81	187	96	35	89	77	176	265	125	45	99	227	207	181	30
7	Sales tax base (items 5+6):	1907	411	1267	1217	578	1255	1220	1374	2613	532	893	1288	1889	3062	1544	64

Source: a) information on the total consumer expenditure on various groups of commodities
            is obtained from: SARVEKSHANA,   Vol. 9, No. 4, April.1986.
            b) Comparable data on commodity purchases of State governments
            are obtained from the C.S.O.

Note: # Relates to 1983
         ## Relates to 1982-83

Table A.5

DETERMINATION OF SALES TAX BASE : INPUTS AND INVESTMENT GOODS

Rs.crore

Sl. No.	Items	APR	ASSM	BHR	GUJ	HAR	KTK	KER	MPR	MHA	ORS	PUJ	RAJ	T.N	UPR	WBN	GOA
1	Non fuel input and investment expenditure of manufacturing sector:	3659	612	3346	8021	2077	2361	1690	2918	13764	790	2826	1707	6289	5115	5252	473 $
2	Consumption of coal in manufacturing sector:	94	12	193	261	54	78	48	117	464	40	70	58	173	187	101	0
3	Input consumption of non manufacturing sector	2389	686	1962	2362	783	1861	1190	2105	5008	957	1315	1399	2465	3946	4450	114
4	Consumption of non-fuel petroleum inputs:	40	16	148	597	75	36	90	17	363	45	135	39	157	179	70	86 $$
5	Consumption of chemical fertilizers:	480	8	729	248	179	261	61	171	315	55	543	109	312	883	186	3
6	Sales tax base (items 1+2+3-4+5):	6583	1302	6051	10295	3018	4526	2899	5293	19188	1796	4619	3235	9081	9952	10000	504

SOURCE: 1. Information on the manufacturing sector: ANNUAL SURVEY OF INDUSTRIES(SUMMARY RESULTS)
-FACTOREY SECTOR

2. Information on the non-manufacturing, non-agriculture sectors: Estimated from:
   (i) NATIONAL ACCOUNTS STATISTICS, New Delhi: C.S.O.
   (ii) A TECHNICAL NOTE ON THE SIXTH PLAN OF INDIA (1980-85),
       New Delhi: Planning Commission.

3. Information on fertiliser consumption: FERTILISER STATISTICS OF INDIA,
   Published by the Fertilizer association of India, New Delhi.

Table A.6

CONSUMPTION OF PETROLUM PRODUCTS (1982-83 TO 1985-85 AVERAGE)
(Rs.lakhs)

	Consumption			
	ATF & MS	DIESEL	OTHERS	TOTAL
ANDHRA PRADESH	5234	22410	15260	42904
ASSAM	2736	4740	5330	12807
BIHAR	3133	17307	23806	44246
GUJURAT	7043	25502	82401	114946
HARYANA	2390	10809	13996	27196
KARNATAKA	5516	14631	12961	33107
KERALA	4882	9523	15074	29478
MADHYA PRADESH	2893	16334	15766	34993
MAHARASTRA	28522	40559	80336	149417
ORISSA	1313	5161	8531	15005
PUNJAB	5942	18843	22810	47595
RAJASTAN	3330	15855	8438	27623
TAMIL NADU	6783	36111	42656	85550
UTTAR PRADESH	7431	32094	33585	73110
WEST BENGAL	6839	20590	25106	52535
GOA	1006	2430	8848	12284

SOURCE:Compiled from INDIAN PETROLEUM AND NATURAL GAS STATISTICS
       New Delhi.Ministry of Petroleum natural Gas.

NOTES: ATF- Aviation turbine fuel
       MS- Motor Sprit

Table A.7

DETERMINATION OF SALES TAX BASE : MISCELLANEOUS GOODS

Rs. lakh

	Consumption of inputs and investment goods	Consumption of food products	Non-food non-fuel consumption	Aggregate sales tax base (items1+2+3)
APR	658259	407573	190667	1256499
ASSM	130184	137749	41087	309020
BHR	608102	549987	126670	1284759
GUJ	1029518	310195	121704	1461417
HAR	301769	126558	57823	486150
KTK	452649	312544	125482	890675
KER	289899	246761	122030	658690
MPR	529280	314220	137410	980911
MHA	1918753	539935	261342	2720029
ORS	179628	180243	53187	413058
PUJ	461893	168227	89317	719437
RAJ	323455	273301	128829	725585
T.N	908092	405490	188938	1502520
UPR	995194	686313	306174	1987681
WBN	999959	434403	154399	1588761
GOA	50383	4379	6423	61185

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States	Total Wealth	Land	Building	Financial Assets	Other Fincl. Assets	Total Taxable Assets	Mortgages	Small Land-holdings (% to Total-Rural)
APR	2980456	1592211	352526	5961	63233	2013931	20511	11.27
ASM	602657	282527	73831	1020	18055	375433	553	24.53
BHR	968032	444935	110227	2645	84750	642557	4322	23.96
GUJ	2122270	1016250	286044	16032	88991	1407317	11682	6.65
HAR	1674059	921838	190762	1345	40700	1154645	5916	5.04
KTK	2253546	1145628	320531	2978	85347	1554484	28192	6.21
KER	3781796	2251485	469265	3782	68506	2793038	15818	45.74
MP	2519089	1535145	326358	4028	103653	1969183	12768	4.98
MHR	4172319	2063189	436785	25439	288055	2813468	27237	4.65
ORS	855769	512279	101424	1125	29260	644088	4853	19.88
PUN	2533806	1666761	270489	2047	39761	1979057	14448	5.59
RAJ	2288899	1093817	254708	2751	48840	1400117	9771	3.64
TN	2538640	984268	274463	7406	120213	1386350	27227	23.58
UP	8609118	5193688	1175084	12839	182927	6563538	17524	19.11
WB	2477587	1218883	317242	4304	181426	1721855	12790	30.33
HP	543061	275701	81244	679	14448	372072	208	20.95
J&K	625451	344653	102751	0	9942	457346	628	28.13

Source: SARVEKSHANA. July 1986 and October 1987.

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Table A.9
CONSUMPTION OF LIQUOR

	1982-83	1983-84	1984-85	AVERAGE
ANDHRA PRADESH				
Country Spirit(PL)	36996500	41652000	43209000	40619167
I.M.F.L(PL)	8509000	11258000	10488000	10085000
Beer(BL)	45219000	36067000	58058000	46448000
ASSAM				
Country Spirit(PL)	2423754	3317780	3026026	2922520
I.M.F.L(PL)	838282	941076	1068769	949376
Beer(BL)	680341	926051	1053621	886671
BIHAR				
Country Spirit(PL)	10500000	10500000	10700000	10566667
I.M.F.L(PL)	2537084	2535098	2582030	2551404
Beer(BL)	1888222	1886744	1921673	1898880
GOA				
Country Spirit(B.L)	0	0	0	0
I.M.F.L(B.L)	922793	1175043	1559006	1218947
Beer(B.L)	7061009	7474478	7910003	7481830
HARYANA				
Country Spirit(PL)	8005330	10081749	11997450	10028170
I.M.F.L(PL)	5432743	8151318	7784723	7122928
Beer(BL)	6261948	6432728	8244445	6979707
KARNATAKA				
Country Spirit(PL)	18269500	18232000	21260000	19253833
I.M.F.L(PL)	4223250	4741500	5601000	4855250
Beer(BL)	19190000	20913000	25167000	21756667
KERALA				
Country Spirit(PL)	9014546	11375099	8820567	9736737
I.M.F.L(LIT)	4578405	5777308	4418640	4924784
Beer(LIT)	7207984	9095470	6956459	7753305
MADHYA PRADESH				
Country Spirit(PL)	15334562	18130055	19737750	17734122
I.M.F.L.(PL)	2900067	3245794	4232502	3459454
Beer(B.L)	3816438	4130884	5197208	4381510
MAHARASHTRA				
Country Spirit(PL)	5338500	35961500	37052000	26117333
IMFL(PL)	20895000	33267750	47328000	33830250
Beer(BL)	40488000	49779000	30937000	40401333
ORISSA				
Country Spirit(PL)	5690000	5892000	6558000	6046667
I.M.F.L(PL)	492000	649000	950000	697000
Beer(BL)	2889000	3201000	3804000	3298000

	1982-83	1983-84	1984-85	AVERAGE
PUNJAB				
Country Spirit(PL)	15000000	16498000	17457000	16318333
I.M.F.L(PL)	10761000	11534000	13763000	12019333
Beer(B.L)	9277000	8140000	5140000	7519000
RAJASTHAN				
Country Spirit(PL)	10736000	12922000	15553100	13070367
I.M.F.L(PL)	3002250	1786500	1063063	1950604
Beer(B.L)	2744000	2636000	2532251	2637417
TAMILNADU				
Country Spirit(PL)	45168500	63439500	57274500	55294167
I.M.F.L(PL)	4278750	6003000	8414250	6232000
Beer(BL)	6931000	8413000	7849000	7731000
UTTAR PRADESH				
Country Spirit(PL)	12891000	15241000	18011000	15381000
I.M.F.L(PL)	1494000	2338875	2632500	2155125
Beer(BL)	2502500	4493450	4932850	3976267
WEST BENGAL				
Country Spirit(PL)	14404688	15540508	14977104	14907433
I.M.F.L(PL)	2482266	2606276	3124435	2737655
Beer(BL)	8193473	7174018	7337666	7568386
HIMACHAL PRADESH				
Country Spirit(PL)	1520692	1766015	1738007	1674905
I.M.F.L(PL)	1142050	1343693	1601545	1362429
Beer(BL)	789036	787336	1153186	909853
MANIPUR				
Country Spirit	0	0	0	0
I.M.F.L(PL)	402613	530326	744879	559273
Beer(B.L)	113180	198077	223479	178245
MEGHALAYA				
Country Spirit(PL)	336953	315272	282463	311563
I.M.F.L(PL)	430151	541377	772072	581200
Beer(BL)	156318	197644	273062	208975
SIKKIM				
Country Spirit(PL)	N.A.	1088160	1024318	1056239
I.M.F.L(PL)	N.A.	1441506	1376903	1409204
Beer(BL)	0	0	0	0
TRIPURA				
Country Spirit(PL)	164237	172897	160340	165825
I.M.F.L(PL)	135767	155028	164957	151917
Beer(BL)	0	0	0	0

Source: Respective State governments.

Table A.10
TOTAL NUMBER OF VEHICLES ON ROAD/REGISTERED

STATES	TWO WHEELERS	FOUR WHEELERS (SMALL)	TAXIS	BUSES	TRUCKS	OTHERS
AP						
1982-1983	197251	40075	3174	9391	39862	34070
1983-1984	312898	54813	21302	9856	45670	29054
1984-1985	360816	48315	19572	10282	52750	33747
AVERAGE	290322	47734	14683	9843	46094	32290
ASM						
1982-1983	26290	22463	2379	2595	23031	18806
1983-1984	30356	21962	2652	2917	24092	18480
1984-1985	39754	26353	3216	3297	26487	19932
AVERAGE	32133	23593	2749	2936	24537	19073
BHR						
1982-1983	126962	43189	9019	9466	34013	31038
1983-1984	153570	45253	10394	10359	36218	33923
1984-1985	181651	47262	12140	11063	38515	37885
AVERAGE	154061	45235	10518	10296	36249	34282
GOA						
1982-1983	28588	6980	1713	955	6854	1381
1983-1984	32633	7379	1925	1024	7532	1566
1984-1985	37232	8006	2085	1157	8368	1702
AVERAGE	32818	7455	1908	1045	7585	1550
GUJ						
1982-1983	303894	60788	27295	8636	48839	72508
1983-1984	379403	62431	30776	8145	58541	86021
1984-1985	428510	62517	36722	8594	60476	95184
AVERAGE	370602	61912	31598	8458	55952	84571
HAR						
1982-1983	74848	10091	2388	2894	20027	45963
1983-1984	90621	9328	2912	2926	20253	57506
1984-1985	99953	11376	3274	3349	21424	70923
AVERAGE	88474	10265	2858	3056	20568	58131
KTK						
1982-1983	296675	79540	27156	16193	36510	48158
1983-1984	350829	84048	31187	17281	40047	54958
1984-1985	417464	99676	289541	17885	42875	64253
AVERAGE	354989	87755	115961	17120	39811	55790
KER						
1982-1983	81908	74627	38857	12320	31685	7526
1983-1984	96549	80834	43373	13647	34258	8319
1984-1985	111702	89210	52626	15234	40869	9618
AVERAGE	96720	81557	44952	13734	35604	8488
MP						
1982-1983	206017	30103	8772	7947	27133	40112
1983-1984	265734	36167	11212	10108	30892	48347
1984-1985	322215	39204	12243	11127	35474	56035
AVERAGE	264655	35158	10742	9727	31166	48165

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Table A.10 (contd.)
TOTAL NUMBER OF VEHICLES ON ROAD/REGISTERED

STATES	TWO WHEELERS	FOUR WHEELERS (SMALL)	TAXIS	BUSES	TRUCKS	OTHERS
MAH						
1982-1983	482974	250975	82343	18520	123238	70362
1983-1984	597744	265470	94303	19188	130970	78712
1984-1985	709320	282972	106962	19839	142551	83404
AVERAGE	596679	266472	94536	19182	132253	77493
ORS						
1982-1983	75191	26375	2630	5099	25449	10632
1983-1984	88671	27891	2925	5384	27036	11622
1984-1985	105310	30230	3264	5624	28300	11656
AVERAGE	89724	28165	2940	5369	26928	11303
PUN						
1982-1983	252941	35541	6278	6095	28833	164451
1983-1984	311095	37884	7026	6355	31592	162765
1984-1985	376653	40546	7841	6560	33542	196704
AVERAGE	313563	37990	7048	6337	31322	174640
RAJ						
1982-1983	140151	32970	7112	6361	22962	56026
1983-1984	163852	32940	7822	7144	22811	53080
1984-1985	189345	34243	10853	9743	29368	49767
AVERAGE	164443	33384	8596	7756	25054	52958
TN						
1982-1983	208926	75390	19942	13776	37634	28825
1983-1984	239724	83088	20238	14125	40445	30792
1984-1985	275617	91487	20731	14819	43708	479445
AVERAGE	241422	83322	20304	14240	40596	179687
UP						
1982-1983	336096	51960	10222	9932	39843	120671
1983-1984	393658	53434	12768	16425	41145	125265
1984-1985	488468	61207	15042	18385	42769	138653
AVERAGE	406074	55534	12677	14914	41252	128197
WB						
1982-1983	128083	162171	17283	14656	70240	19666
1983-1984	151417	165623	19321	15658	83429	17665
1984-1985	170595	171776	29304	16496	86767	18562
AVERAGE	150032	166523	21969	15603	80145	18631
J&K						
1982-1983	15852	8657	4452	4451	9080	2284
1983-1984	18248	9663	4932	4624	9657	2646
1984-1985	19508	10615	5095	4918	10244	2776
AVERAGE	17869	9645	4826	4664	9660	2569
MNP						
1982-1983	3647	1119	579	182	1851	456
1983-1984	5090	1176	638	191	1994	513
1984-1985	7340	1231	723	226	2466	342
AVERAGE	5359	1175	647	200	2104	437

Table A.10 (contd.)
TOTAL NUMBER OF VEHICLES ON ROAD/REGISTERED

STATES	TWO WHEELERS	FOUR WHEELERS (SMALL)	TAXIS	BUSES	TRUCKS	OTHERS
MEG						
1982-1983	2765	4593	902	699	2749	120 (est)
1983-1984	2986	4960	973	755	2969	130 (est)
1984-1985	3035	5041	989	767	3017	132
AVERAGE	2929	4865	955	740	2911	127
MIZ						
1982-1983	123	203	0	36	142	15
1983-1984	102	224	0	26	83	13
1984-1985	114	334	0	32	83	17
AVERAGE	113	254	0	31	103	15
NGL						
1982-1983	6516	8786	1423	297	8337	2525
1983-1984	6817	9589	1743	417	8636	2873
1984-1985	6890	9832	1802	479	8740	2944
AVERAGE	6741	9402	1656	398	8571	2781
TRP						
1982-1983	1678	2171	909	550	3124	916
1983-1984	1994	2194	1002	625	3191	918
1984-1985	2353	2219	1110	638	3244	955
AVERAGE	2008	2195	1007	604	3186	930

Source: Respective State governments.

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Table A.11
TOTAL NUMBER OF CINEMA HALLS
AND THEIR SEATING CAPACITY

STATES	NUMBER	TOT. SEAT. CAPACITY	
AP			
1982-83	2052	1134007	(est).
1983-84	2131	1177665	(est).
1984-85	2230	1232376	(est).
ASM			
1982-83	122	137412	
1983-84	128	141467	
1984-85	134	145181	
BHR			
1982-83	348	218786	
1983-84	348	218786	
1984-85	348	218786	
GOA			
1982-83	28	15411	
1983-84	28	15411	
1984-85	29	16019	
GUJ			
1982-83	514	340959	(est)
1983-84	554	367493	(est)
1984-85	541	358869	(est)
HAR			
1982-83	115	69098	
1983-84	117	75250	
1984-85	119	76150	
KTK			
1982-83	1124	549000	
1983-84	1188	572000	
1984-85	1275	613000	
KER			
1982-83	1239	613196	(est)
1983-84	1282	634478	(est)
1984-85	1323	654769	(est)
MP			
1982-83	559	276433	(est)
1983-84	590	291763	(est)
1984-85	618	305609	(est)
MAH			
1982-83	1323	908666	(est)
1983-84	1179	809763	(est)
1984-85	1243	853720	
ORS			
1982-83	142	87527	
1983-84	151	93615	
1984-85	162	103401	
PUN			
1982-83	162	110867	
1983-84	167	111454	
1984-85	169	119656	

Table A.11
TOTAL NUMBER OF CINEMA HALLS
AND THEIR SEATING CAPACITY (CONTD.)

STATES	NUMBER	TOT. SEAT. CAPACITY	
RAJ			
1982-83	224	153412	(est)
1983-84	223	152727	(est)
1984-85	211	144508	(est)
TN			
1982-83	2036	1052612	(est)
1983-84	2135	1103795	(est)
1984-85	2150	1111550	(est)
UP			
1982-83	693	446091	
1983-84	701	460493	
1984-85	725	477880	
WB			
1982-83	701	496329	
1983-84	712	505079	
1984-85	733	518947	
ARU			
1982-83	9	4299	
1983-84	9	4299	
1984-85	9	4299	
HP			
1982-83	26	10954	
1983-84	26	10954	
1984-85	26	10954	
MNP			
1982-83	31	16431	
1983-84	34	18683	
1984-85	34	18683	
MEG			
1982-83	8	5456	
1983-84	9	6369	
1984-85	11	7657	
MIZ			
1982-83	2	1050	
1983-84	2	1050	
1984-85	2	1050	
NAG			
1982-83	14	7671	
1983-84	13	7561	
1984-85	11	6603	
SKM			
1982-83	4	2967	
1983-84	4	2967	
1984-85	4	2967	
TRP			
1982-83	34	14023	
1983-84	40	15727	
1984-85	61	20865	

Source: Data supplied by respective States
and CMIE. BASIC STATISTICS RELATING
TO INDIAN ECONOMY, various issues.

Table A.12

STATES' OWN TAX REVENUE

(Rs. lakh)

	1982-83	1983-84	1984-85	Average
State : Andhra Pradesh				
Land and agricultural taxes	2562	1447	1753	1921
Stamps and Regist(gross)	5962	6380	6806	6383
State Excise	23582	28248	35127	28986
Sales Tax	40635	50337	61090	50687
i) Central Sales tax	6639	7207	9606	7817
ii) General Sales tax	33996	43131	51484	42870
Taxes on vehicles	6435	7978	9312	7908
Entertainment Taxes	3075	3794	4417	3762
Other Taxes	107	181	191	160
State : Assam				
Land and agricultural taxes	1133	1556	4051	2247
Stamps and Regist(gross)	346	464	570	460
State Excise	337	571	606	505
Sales Tax	7544	9389	11793	9575
i) Central Sales tax	1776	2919	3362	2686
ii) General Sales tax	5768	6470	8431	6890
Taxes on vehicles	734	776	928	813
Entertainment Taxes	314	377	479	390
Other Taxes	121	101	173	132
State : Bihar				
Land and agricultural taxes	1208	2050	1680	1646
Stamps and Regist(gross)	3280	3619	3771	3557
State Excise	2856	3495	4250	3534
Sales Tax	26375	29701	32016	29364
i) Central Sales tax	7489	8436	9670	8532
ii) General Sales tax	18886	21265	22346	20832
Taxes on vehicles	2850	3180	3130	3053
Entertainment Taxes	741	989	1004	911
Other Taxes	29	0	5	11
State: Goa				
Land and agricultural taxes	13	15	15	14
Stamps and Regist(gross)	109	126	161	132
State Excise	410	520	650	527
Sales Tax	1976	2116	3524	2539
i) Central Sales tax				0
ii) General Sales tax	1976	2116	3524	2539
Taxes on vehicles	232	250	286	256
Entertainment Taxes	66	69	78	71
Other Taxes	0	0	0	0

STATES   OWN TAX REVENUE

(Rs. lakh)

State: Gujarat	1982-83	1983-84	1984-85	Average
Land and agricultural taxes	1362	1623	1702	1562
Stamps and Regist(gross)	3840	3988	4387	4072
State Excise	491	628	455	525
Sales Tax	50401	55487	60943	55610
i) Central Sales tax	11112	11301	12324	11579
ii) General Sales tax	39289	44185	48619	44031
Taxes on vehicles	8507	11992	10628	10376
Entertainment Taxes	3190	3812	4070	3691
Other Taxes	1151	1080	3326	1852

State : Haryana	1982-83	1983-84	1984-85	Average
Land and agricultural taxes	338	376	395	370
Stamps and Regist(gross)	2518	2808	3210	2845
State Excise	6191	6840	9052	7361
Sales Tax	16043	16747	18480	17090
i) Central Sales tax	6122	6629	7843	6865
ii) General Sales tax	9921	10118	10637	10225
Taxes on vehicles	5780	6399	6898	6359
Entertainment Taxes	816	799	786	800
Other Taxes				0

State : Karantaka	1982-83	1983-84	1984-85	Average
Land and agricultural taxes	1418	1828	1442	1563
Stamps and Regist(gross)	3705	4445	5311	4487
State Excise	13169	15467	18061	15566
Sales Tax	34478	39930	48458	40955
i) Central Sales tax	7362	7404	8821	7862
ii) General Sales tax	27116	32526	39637	33093
Taxes on vehicles	5917	6784	7992	6898
Entertainment Taxes	2922	3175	3477	3191
Other Taxes	1189	716	565	823

State : Kerala	1982-83	1983-84	1984-85	Average
Land and agricultural taxes	1434	1790	2502	1909
Stamps and Regist(gross)	4205	4476	5432	4704
State Excise	7336	8073	1003	5471
Sales Tax	27520	30660	37519	31900
i) Central Sales tax	1911	2403	2631	2315
ii) General Sales tax	25609	28257	34888	29585
Taxes on vehicles	2601	3134	4050	3262
Entertainment Taxes	327	380	443	383
Other Taxes	53	76	121	83

STATES OWN TAX REVENUE   (Rs. lakh)

	1982-83	1983-84	1984-85	Average
State : Madhya Pradesh				
Land and agricultural taxes	1309	1654	1628	1530
Stamps and Regist(gross)	3014	3649	3941	3535
State Excise	8047	9163	10990	9400
Sales Tax	28395	32891	36001	32429
i) Central Sales tax	5784	6958	9097	7280
ii) General Sales tax	22611	25933	26904	25149
Taxes on vehicles	3860	4732	5565	4719
Entertainment Taxes	1841	1997	2043	1960
Other Taxes	27	23	19	23
State : Maharashtra				
Land and agricultural taxes	2995	2421	2979	2798
Stamps and Regist(gross)	5315	6100	7163	6193
State Excise	13980	15318	16901	15400
Sales Tax	102697	119988	125209	115965
i) Central Sales tax	23313	24316	26380	24670
ii) General Sales tax	79384	95672	98829	91295
Taxes on vehicles	16139	14478	15647	15421
Entertainment Taxes	7078	7557	7781	7472
Other Taxes	4544	3799	5635	4660
State : Orissa				
Land and agricultural taxes	1005	1508	1296	1270
Stamps and Regist(gross)	1079	1251	1431	1253
State Excise	1307	1544	1876	1576
Sales Tax	10205	11400	12623	11409
i) Central Sales tax	2335	2452	4174	2987
ii) General Sales tax	7870	8947	8449	8422
Taxes on vehicles	1556	1858	2602	2005
Entertainment Taxes	389	398	414	400
Other Taxes				0
State : Punjab				
Land and agricultural taxes	337	253	355	315
Stamps and Regist(gross)	5012	4501	3926	4480
State Excise	13658	14959	18123	15580
Sales Tax	21993	25534	26356	24628
i) Central Sales tax	4364	5292	5582	5079
ii) General Sales tax	17629	20242	20774	19548
Taxes on vehicles	5261	5723	5410	5465
Entertainment Taxes	1044	906	732	894
Other Taxes	74	70	46	63

Table A.12 (contd.)

STATES' OWN TAX REVENUE

(Rs. lakh)

	1982-83	1983-84	1984-85	Average
State: Rajasthan				
Land and agricultural taxes	2433	2101	1501	2012
Stamps and Regist(gross)	539	592	678	603
State Excise	5355	6395	7609	6453
Sales Tax	22227	25003	28045	25092
i) Central Sales tax	2344	2275	2561	2393
ii) General Sales tax	19884	22728	25484	22699
Taxes on vehicles	4698	5718	6416	5611
Entertainment Taxes	1015	1037	1059	1037
Other Taxes	149	211	203	188
State : Tamil Nadu				
Land and agricultural taxes	1290	1039	3805	2045
Stamps and Regist(gross)	8318	9125	10496	9313
State Excise	15213	21988	20053	19084
Sales Tax	65547	70321	82525	72798
i) Central Sales tax	10159	11835	13076	11690
ii) General Sales tax	55388	58486	69449	61108
Taxes on vehicles	7794	9058	9229	8694
Entertainment Taxes	4122	4338	4869	4443
Other Taxes	416	463	517	465
State : Uttar Pradesh				
Land and agricultural taxes	2843	3485	2411	2913
Stamps and Regist(gross)	11280	11178	12379	11612
State Excise	13078	13020	18080	14726
Sales Tax	48698	55114	63089	55634
i) Central Sales tax	5227	5437	6545	5736
ii) General Sales tax	43471	49677	56544	49897
Taxes on vehicles	11062	10108	11651	10940
Entertainment Taxes	4597	5010	5128	4912
Other Taxes	1	0		0
State: West Bengal				
Land and agricultural taxes	3711	6434	12510	7552
Stamps and Regist(gross)	3935	4232	4876	4348
State Excise	6036	6966	7741	6914
Sales Tax	38963	45006	53688	45886
i) Central Sales tax	12035	12970	14673	13226
ii) General Sales tax	26928	32037	39014	32660
Taxes on vehicles	7588	7985	9583	8385
Entertainment Taxes	2535	3091	3712	3113
Other Taxes	651	1066	487	735

STATES OWN TAX REVENUE

(Rs. lakh)

	1982-83	1983-84	1984-85	Average
State : Himachal Pradesh				
Land and agricultural taxes	47	43	47	46
Stamps and Regist(gross)	241	271	304	272
State Excise	1472	1718	2053	1747
Sales Tax	1861	2225	2423	2170
i) Central Sales tax	144	152	177	158
ii) General Sales tax	1717	2073	2247	2012
Taxes on vehicles	873	876	958	903
Entertainment Taxes	72	80	83	78
Other Taxes	118	154	124	132
State: Jammu & Kashmir				
Land and agricultural taxes	81	90	78	83
Stamps and Regist(gross)	314	299	299	304
State Excise	2457	2952	1900	2436
Sales Tax	2567	2705	2991	2688
i) Central Sales tax	0	0	0	0
ii) General Sales tax	2567	2705	2991	2688
Taxes on vehicles	573	528	646	582
Entertainment Taxes	233	248	258	246
Other Taxes	19	34	25	26
State : Manipur				
Land and agricultural taxes	27	33	31	30
Stamps and Regist(gross)	20	28	28	25
State Excise	62	92	132	95
Sales Tax	167	169	196	177
i) Central Sales tax	0	0	0	0
ii) General Sales tax	167	169	196	177
Taxes on vehicles	60	72	70	67
Entertainment Taxes	42	61	51	51
Other Taxes	15	0	0	5
State : Meghalaya				
Land and agricultural taxes	7	5	9	7
Stamps and Regist(gross)	22	31	32	28
State Excise	190	234	313	246
Sales Tax	352	490	687	510
i) Central Sales tax	38	91	90	73
ii) General Sales tax	314	399	597	436
Taxes on vehicles	81	107	110	99
Entertainment Taxes	33	19	38	30
Other Taxes	34	12	12	19

Table A.12 (contd.)

STATES   OWN TAX REVENUE

(Rs. lakh)

	1982-83	1983-84	1984-85	Average
State: Mizoram				
Land and agricultural taxes	8	9	12	10
Stamps and Regist(gross)	0	2	2	1
State Excise	16	19	30	22
Sales Tax	1	1	4	2
i) Central Sales tax	0	0	0	0
ii) General Sales tax	1	1	4	2
Taxes on vehicles	11	12	14	12
Entertainment Taxes	8	9	8	8
Other Taxes	6	0	0	2
State : Nagaland				
Land and agricultural taxes	5	7	6	6
Stamps and Regist(gross)	7	10	10	9
State Excise	200	275	399	291
Sales Tax	337	527	554	473
i) Central Sales tax	13	N.A.	N.A.	N.A.
ii) General Sales tax	324	N.A.	N.A.	N.A.
Taxes on vehicles	49	69	79	66
Entertainment Taxes	19	20	18	19
Other Taxes	0	0	0	0
State : Sikkim				
Land and agricultural taxes	4	4	4	4
Stamps and Regist(gross)	8	6	7	7
State Excise	203	234	313	250
Sales Tax	84	92	132	103
i) Central Sales tax	0	0	0	0
ii) General Sales tax	84	92	132	103
Taxes on vehicles	7	9	11	9
Entertainment Taxes	8	13	21	14
Other Taxes	22	20	13	18
State : Tripura				
Land and agricultural taxes	25	136	49	70
Stamps and Regist(gross)	66	73	81	73
State Excise	51	63	66	60
Sales Tax	347	410	459	405
i) Central Sales tax	0	0	0	0
ii) General Sales tax	347	410	459	405
Taxes on vehicles	39	48	46	44
Entertainment Taxes	32	39	37	36
Other Taxes	6	7	0	4

Source: Respective Finance Accounts and budgets.