CHAPTER - III
THEORY OF INDIRECT TAXATION AND FISCAL FEDERALISM

Introduction

As discussed in Chapter I, taxes (especially indirect commodity taxes) play a key role in financing to discharge the responsibilities by a government. However, the prevailing indirect tax structure suffers various deficiencies. The conservative economists have shown a keen interest in having a uniform structure of indirect taxation and even the government's policy reflect this view. A uniform tax policy is generally based on equity and efficiency considerations but there exists a trade-off between these two important objectives. From the efficiency point of view, a differentiated structure has greater distortionary effects. The other objective is of equity between consumers. A uniform tax (general sales tax or VAT) at a single rate would be fair than a non-uniform tax that results in discrimination against people purchasing heavily taxed goods out of their preferences. So in this section both equity and efficiency considerations of a uniform tax policy are discussed separately.

The next section undertakes the study of theoretical principles guiding the federal fiscal arrangements in federalist countries. A number of comprehensive definitions of fiscal federalism are given, which also exhibits the benefits/merits of adopting federal principles in a fiscal system. Moreover, the economic theories of fiscal federalism are also explained in the light of three main functions of a government in a federal system i.e stabilization, redistribution and allocation.

In India, the federal fiscal arrangements are mentioned in the Constitution from where both Central and State governments derive their powers and functions. However, discrepancy has emerged in the powers and functions of both these levels of government since financial powers are concentrated in the Central government and responsibility with the States. Common tax base of two levels of government is another problem faced by the federal system. To mitigate these discrepancies inter-governmental or fiscal transfers are done through Finance Commission, Planning Commission and central transfers to States.

Another problem faced by the federal system is of Overlapping of tax and expenditure functions among different governmental units. The solution lies in
harmonizing the taxes levied by two governments at the same base. The ultimate recourse to the problem is the adoption of Value Added Tax in India.

Features of Indirect Tax Structure

The Indian Indirect tax structure exhibits certain features, which need to be questioned. In case of indirect taxes, commodities are taxed at different rates. This results in various inefficiencies and distortions in the tax structure. These include tax evasion, tax competition etc. To overcome this drawback in the indirect tax structure, various economists have shown interest in having a uniform structure of indirect taxation based on efficiency or distributional grounds.

Musgrave and Musgrave (1989) have listed following criteria to appraise the quality of a tax structure:

1) The distribution of the tax burden should be equitable. Everyone should be made to pay his or her “fair share”.

2) Taxes should be chosen so as to minimize interference with economic decisions in otherwise efficient markets. Such interference imposes “excess burdens” which should be minimized.

3) Where tax policy is used to achieve other objectives, such as grant investment incentives, this should be done so as to minimize interference with the equity of the system.

4) The tax structure should facilitate the use of fiscal policy for stabilization and growth objectives.

5) The tax system should permit fair and non arbitrary administration and it should be understandable to the tax payer.

6) Administration and compliance cost should be as low as is compatible with the other objectives.

The various objectives are not necessarily in agreement, and where they conflict, tradeoff between them is needed. Thus, equity may require administrative complexity and may interfere with neutrality. Corrective use of tax policy may interfere with equity and so forth.

Equity is considered to be a basic criterion for tax structure design. It is agreed that the tax system should be equitable that each taxpayer should contribute his ‘fair
share’ to the cost of government. Though there is no such agreement about how the term ‘fair share’ should be defined. But there are two important approaches in this regard: Benefit Principle and Ability to Pay Approach.

According to the Benefit principle, an equitable tax system is one under which each taxpayer contribute in line with the benefits which he receives from public services. The other approach, the Ability to pay requires that given total revenue is needed and each taxpayer is asked to contribute in line with his ability to pay.

Equity principle includes both horizontal and vertical equity. The requirement of equal taxes for people in equal positions is also referred to as “horizontal” equity, and the proper pattern of unequal taxes among people with unequal incomes is referred to as “vertical” equity.

The optimal use of scarce resources involves two basic issues. One is to secure efficiency and the other is to secure a state of just distribution. In terms of Pareto-efficiency, the proposition is that there is a welfare gain when the position of any one individual can be improved without hurting that of another. But since there exists an efficient solution corresponding to each and every state of distribution. Here the problem of distribution is one of evaluating a change in which someone gains while someone else losses.

The optimal solution requires making distributional adjustments through a set of taxes and transfers assessed in line with the individuals’ potential welfare, whether taken in income or in leisure.

**Theory of Commodity (Indirect) Taxation**

According to conservative economists there is a definite preference for a uniform rate structure and even the government’s policies reflect this view. However, a uniform tax policy is based on equity and efficiency considerations but there exists a trade-off between these two important objectives. From the efficiency point of view, a differentiated structure has greater distortionary effects. The other objective of uniform system of taxation is that of equity between consumers. A general sales tax or value added tax on all expenditure at a single rate would be fair, as everyone would pay the same tax on all their expenditures. However, non-uniformity in tax rates causes excess burden for those people who are purchasing more heavily taxed commodities out of their preferences.
It is advisable to discuss equity and efficiency considerations separately to analyse these arguments for uniform taxation. There are two sections; in the first section focus is on Partial Equilibrium analysis, the Ramsey tax model and Pareto welfare improvements and Tax reform. To explain this model, all individuals are assumed to be identical and they are treated identically also. Here we are concerned with the efficiency objective as to whether form the allocational stand point a uniform tax is preferable to a differentiated structure. The second section, deals with optimal taxation in Many-person economy and Horizontal equity. Here the distributional considerations are introduced and the balance between the equity and efficiency is considered.

The term ‘optimal taxation’ for welfare economists is the one, which minimizes the aggregate deadweight loss (excess burden) for any given tax revenue or level of public expenditure. The theory has then gradually been extended to take account of distributional considerations.

From an efficiency point of view, an ideal tax system is one, which is consistent with a Pareto optimal allocation of resources. The classical solution to the problem is to advocate lump-sum taxes, which are clearly neutral with respect to all marginal evaluations made by consumers and producers. Although lump-sum taxes can be envisaged in the context of a once-and-for-all levy, it is much more difficult to imagine such taxes as a permanent system. If the public sector levies lump-sum taxes each year in such a way that the elasticity of the tax payment with respect to the taxpayer’s income exceeds one everywhere, taxpayers will soon discover that they do in fact have a progressive income tax system and adjust their actions accordingly.

However, even if lump-sum taxes are ruled out, there are still taxes, which are consistent with Pareto-optimality. Pigou (1920) argued that indirect taxes could be used to improve the efficiency of the market allocation of resources in the presence of externalities. Thus taxation need not be distortionary by the standard of Pareto optimality (Sandmo, 1976). But this assumption is not so realistic as public sector cannot raise all its tax revenue from neutral or pigovian taxes and thus arises the second-best problem of making the best of a necessarily distortionary tax system. This is the problem with which the optimal tax literature is mainly concerned.

The literature on the treatment of the problem has an interesting history. Although the early history of the subject goes back at least to 19th century writers on
public utilities, the first analytical formulation and solution of the problem appears in
the celebrated article by Ramsey (1927). Ramsey gives credit to Pigou for suggesting
the problem, and Pigou (1947) himself gave a very good, although simplified,
treatment of it in his book on public finance. Ramsey’s main concern was to find the
commodity tax rates that maximize a representative consumer’s utility, given the
government’s revenue requirement. Ramsey has explained his model assuming all
individuals to be identical. With an efficiency objective in view, it was examined
whether from the allocational standpoint a uniform tax is preferable to a differentiated
structure

But this analysis was not taken into consideration in further readings by
different economists. Nor did it have any impact on the analysis of the welfare
economics of the second-best, which began with the article by Lipsey and Lancaster
(1956-57). Among French economists the subject received more attention; important
analysis was contributed by Boiteux (1951-56) and many further developments were
made by Kolm (1969-70). Around 1970 there began a general revival of interest in the
subject, with publication of articles by Baumol and Bradford (1970), Lerner (1970),
Dixit (1970) and Diamond and Mirrlees (1971); of these, the Diamond-Mirrlees
article in particular represents a major generalization and extension of the Ramsey
formulation. Diamond & Mirrlees have however, argued that the problem of
optimality arises in case of an economy where consumers have diverse taxes, abilities
and endowments and not in an economy where all consumers are identical as
explained by Ramsey. They have taken (though separately) the many-person model
where distributional equity considerations are introduced and balance between the
equity and efficiency aspects is considered.

Partial Equilibrium Analysis (Endnotes are explained in Annexure A.3.1)

Uniform rates are not in fact necessarily desirable from an efficiency
standpoint. This can be demonstrated by simple partial equilibrium analysis, where
there are no cross-price effects and therefore relevant income derivatives are zero.
a) Single Commodity

Let us assume that the supply of good $k$ is perfectly elastic at price $p_k$, so that the equilibrium in the absence of taxation is at point $E$ in Figure 3.1. The effect of an ad valorem tax at rate $t_k$ is to raise the consumer price from $p_k$ to $(1 + t_k)$. The after-tax equilibrium is at point $B$ in this partial equilibrium framework the distortion caused by the tax is often measured by the loss of consumer surplus over and above the revenue raised, the "excess burden".

The excess burden is thus the additional cost of raising given revenue through distortionary taxation. In economics, an excess burden (also known as deadweight loss) is a loss of economic efficiency that can occur when equilibrium for a good or service is not Pareto optimal. In other words, either people who would have more marginal benefit than marginal cost are not buying the good or service or people who would have more marginal cost than marginal benefit are buying the product.

If we take the area $ABECD$ as a measure of the loss of consumer surplus, the excess burden is represented by the shaded area $BCE$.

$$\text{Area BCE} = \text{Area BEFGC} - \text{Area CEFG}$$

where $X_k^0$ denotes the equilibrium quantity before the tax is introduced, $X_k'$ that after the tax is introduced. The excess burden is therefore zero for infinitesimal taxes (i.e., evaluating at $t_k = 0$).\(^1\)
Causes of deadweight loss include monopoly pricing, externalities or taxes or subsidies. The term deadweight loss may also be referred to as the "excess burden of monopoly" or the "excess burden of taxation".

For example, consider a market for pens where the cost of each pen is Rs 10 and that the demand will decrease linearly from a high demand for free pens to zero demand for pens at Rs 10. In a perfectly competitive market, producers would have to charge a price of Rs 10 and every customer whose marginal benefit exceeds Rs 10 would have a pen. However, if only one producer has a monopoly on the product, then they will charge whichever price will yield the highest profit. For this market, the producer would charge Rs 60 and thus exclude every customer who had less than Rs 60 of marginal benefit. The deadweight loss is then the economic benefit forgone by these customers due to the monopoly pricing.

Conversely, deadweight loss can also come from consumers buying a product even if it costs more than it benefits them. To see this, let's use the same pen market, but instead it will be perfectly competitive with the government giving a Rs 3 subsidy to every pen produced. This Rs 3 subsidy will push the market price of each pen down to Rs 7. Some consumers then buy pens even though their benefit to them is less than the cost of Rs 10. This unneeded expense then creates the deadweight loss.

There are two important concepts of deadweight loss due to Hicks and Marshall with a distinction. The latter is related to the concept of consumer surplus, such that it can be shown that the Marshallian deadweight loss is zero where demand is perfectly elastic or supply is perfectly inelastic. On the other hand, Hicks analysed the situation through indifference curves and noted that when the Marshallian Demand Curve exhibits perfect inelasticity, the policy or economic situation which caused a distortion in relative prices will have an income effect and that this income effect is a deadweight loss.

b) Multiple Commodities

Now let us turn to a situation of many commodities. We know that the 'excess burden' of taxation represents an efficiency loss, which must be compared with any perceived gains arising either from income redistribution or the non-transfer expenditure carried out by the government. An important property is that, under certain assumptions, it increases disproportionately with the tax rate. This result
provides the basis of a general presumption in favour of a broad-based and low tax rate system: any exemptions which reduce the tax base inevitably raise the tax rate required to obtain given amount of total tax revenue.

Suppose now that the government chooses the tax rates \((t_1, \ldots, t_n)\) on different goods \((X_1, \ldots, X_n)\) which have prices \((p_1, \ldots, p_n)\), in such a way as to raise a specified revenue with the minimum total excess burden. The revenue condition is properly seen in terms of the government’s purchasing a fixed amount of real commodities (government spending). With fixed producer prices we can treat it as a financial constraint expressed as:

\[ R = \sum_{k=1}^{n} t_k p_k X_k = R_0 \]

where \(R_0\) is the required level of revenue.

A solution satisfying these first-order conditions involves therefore the tax rate on good \(k\) being in inverse proportion to the price elasticity of demand. In the extreme case when a good demanded is completely inelastic (or a factor supplied by households completely inelastic) the excess burden is zero and all revenue, or as much as feasible, should be raised by taxing this commodity. Apart from this, the optimal tax structure can be uniform only where all goods have the same elasticity of demand. In general, the best way of raising a given revenue is by a system of taxes, under which the rates become progressively higher as we pass from uses of very elastic demand or supply to uses where demand or supply are progressively less elastic.

This finding, although typically reported in public finance texts, is often regarded with considerable skepticism. Musgrave (1959) relegates it to a footnote and comments that the theorem is arrived at within the framework of the old welfare economics of inter-personal utility comparison. It belongs to the welfare view of the ability-to-pay approach. However, Musgrave's own analysis is a special case of that described above. Musgrave's conclusion that a general ad valorem tax is preferable to a system of selective excises imposed at differential rates assumes a fixed supply of labour. The argument of the previous paragraph indicates that in this case all revenue should be raised by taxing labour; and, ignoring saving, this is equivalent to a uniform excise tax. Other writers have expressed reservations about the strength of the assumptions. But this result may be dismissed with the comment that such restrictive
assumptions have to be made in order to derive a solution, that they would appear to have little practical significance. However, he offers nothing in their place.

The assumptions underlying the partial equilibrium framework are indeed restrictive, requiring in effect that there exist no income-effects and that cross-price elasticities are all zero.

The Ramsey Tax Model

The theory of optimal commodity taxation began with the early-twentieth-century economist Frank Ramsey (1927), who considered the problem of a government with a given budgetary requirement and the ability to set different tax rates for different commodities (food, clothing, tobacco, and so on). Ramsey formulated the problem of optimal taxation by asking the question: How can we raise a given amount of revenue with the least amount of distortion? In other words, how should a government set its tax rates across a set of commodities to minimize the deadweight loss of the tax system while meeting its budgetary requirement? To solve this problem, he formulated a model.

The Model

Since the initial aim is to focus on efficiency considerations, it is assumed that all consumers are identical, and face identical tax rates, and that the objective of the government is to maximize the welfare of a "representative" individual. On the production side, it is assumed that there are fixed producer prices for all goods and a fixed wage rate $w$ for labour. Labour is to be the only factor supplied by households, and they have no other source of income. Since the producer prices are fixed, we can without loss of generality, set them at unity, so that the consumer price of good $k$ is given by $(q_k = 1 + t_k)$.

The structure of the problem is that the government is maximizing welfare subject to the demand and supply functions of individuals, which are themselves based on solving a constrained maximization problem. The representative consumer supplies $L$ units of labour (where $L$ is measured as a fraction of the working day) and consumes $X_i$ of good $i$ ($i = 1, \ldots, n$). He is assumed to maximize $U(X, L)$ subject to the budget constraint

$$\sum_{i=1}^{n} q_i X_i = wL$$
It may be noted that there is assumed to be no tax on wage income, but if there is no other source of income for the consumer this involves no loss of generality.

**Equivalence between Wage Tax and Commodity Taxes**

Now since we know the government needs to raise revenue by taxing either/or labour \((L)\) and commodities \((X)\). So there is bound to be some relation between these two tax bases.\(^4\)

The government revenue remains also unaffected. A tax on wage income is therefore equivalent in this model to a uniform tax on all goods. This depends on the fact that there is no other source of income (such as profit income) and that we cannot tax the consumer’s labour endowment (i.e., leisure). What is required is that the demand functions be homogeneous of degree zero in consumer prices. The demand functions do not have this property if the consumer receives lump-sum transfers (pays lump-sum taxes) in nominal units, or where there are profits from the production sector.

**Indirect Utility Function**

The government aims then to maximize individual welfare subject to the revenue constraint and the individual conditions for utility maximization. The problem may conveniently be treated in terms of the indirect utility function \(V(q, w)\) by using Langrangean and Slutsky relation following can be derived:\(^5\)

\[
\sum_i t_i S_{i,k} = -\theta X_k \quad \text{for } k = 1, ..., n \ldots (3.1)
\]

where \(S_{i,k}\) is the derivative of the compensated demand curve and

Samuelson gave the following interpretation of the equation. The left hand side is the change in the demand for good \(k\) that would result if the consumer were compensated to stay on the same indifference curve and the derivatives of the compensated demand curves were constant. In fact, it is not possible for the latter condition to be satisfied for all commodities, but for small taxes it is approximately true that the optimal tax structure involves an equal proportionate movement along the compensated demand curve for all goods (since \(\theta\) is independent of \(k\)). The importance in this formula of the *compensated* derivatives accords with intuition: the income-effect would arise with any form of taxation, and the distortion stems from the substitution-effect. We may note that multiplying (3.1) by \(t_k\) and summing gives
The left-hand side can be shown to be negative (using the negative semi-definiteness of the Slutsky matrix), so that $\theta$ has the same sign as government revenue.

**Lumpsum Tax**

This is a tax not dependent on the behaviour of any taxpayer. A further interpretation may be given for $\theta$ by examining the effect of allowing the government to levy a lump-sum tax $T$. Welfare rises and $\theta$ measures the benefit *expressed in terms of revenue* from being able to switch from the (optimal) indirect tax system to lump-sum taxation.

At this point we may note the consequences of relaxing the assumption of fixed producer prices. Suppose that production takes place under constant return to scale. The government revenue constraint is replaced by a production constraint:

$$wL = F(X_1, \ldots, X_n) + R_n \quad \ldots (3.3)$$

where $w$ is fixed labour is again the *numeraire* and the right hand side gives the labour requirements of the private sector, $F(X)$, and government revenue $R_n$, expressed in terms of labour.6

This general formulation does not yield much in the way of concrete results. Equation 3.1 does not, for example, suggest which goods should be taxed more heavily, and the two-good example cannot readily be extended. In order to obtain more definite results, Ramsey himself made a number of special assumptions on the demand side equivalent to the partial equilibrium analysis. From this it might appear that we have to choose between definite results based on highly restrictive assumptions and more general models yielding only limited conclusions.

**Partial Welfare Improvements and Tax Reform**

According to Ahmed and Stern (1984), there are a number of ways to evaluate a tax system. One is to specify a model of the economy and its initial equilibrium together with value judgement, embodied in some social welfare function, and then ask whether it is possible to reform taxes so as to increase social welfare. Obviously, if we are at an optimum with respect to the social welfare function, then no improving reform is feasible. A second approach is to ask whether there is a set of value

\[
\sum_k \sum_i t_k S_{it} = -\theta R_n \quad \ldots (3.2)
\]
judgements under which, given the model of the economy, the initial state of affairs would be deemed as optimum. That is the inverse optimum problem. The value judgements may then be used in a number of ways. One might infer that these are indeed the value judgements of the government and use them in appraising other decisions. Or if the computed value judgements were seen as objectionable, then they could be employed to criticize the existing state of affairs, in the sense that it could be seen as optimum only with respect to disagreeable values. Thirdly, we can seek to discover Pareto improvements in order to avoid using a, possibly controversial, social welfare function. The literature on optimal taxation has been criticized for directing too much attention at characterizing the optimum and not considering the process by which it can be attained. There is a distinction between tax design, or tax laws being written de novo on 'a clean sheet of paper, and tax reform, which takes as its starting point the existing tax system and the fact that actual changes are slow and piecemeal. We now consider therefore whether we can identify changes in tax rates that represent a partial welfare improvement in that, although falling short of the optimum, they represent a step in the right direction.

Partial Welfare Improvements

As is now well known from the literature on second-best, this is a difficult area. The question is why tax reform? The reasons may be different depending on the country. For example, as Jha (1998) has noted:

(a) There was extreme discontent with the existing tax system in most of the countries. This took several forms. On the one hand, it was felt that, high marginal tax rates were having serious disincentive effects on savings, labour supply and entrepreneurship. On the other hand, they were providing considerable avenues for tax avoidance and evasion and considerable energies and resources were being diverted to making up tax shelters.

(b) It was also felt that apart from diverting resources from work and savings to tax avoidance, high marginal tax rates had not achieved the social and economic objectives they had been designed to meet.

(c) At the same time there was concern that governments were taxing and spending too much.
In real life it is rarely possible to reach optimal tax solutions immediately with desired efficacy. Reforms that may appear to move in the correct direction can turn out on closer inspection to reduce welfare. Intuition can be very misleading. Nonetheless, the optimum tax results discussed in the previous sections provide some insights. For this purpose, we go back to the dual formulation of Ramsey problem. In that case we were in effect evaluating possible changes in policy in terms of their effect on the indirect utility function.\(^7\)

What happens however if we are not at the optimum? Is it possible to reach straightforward conclusions about directions for welfare improvement? We consider first a shift from distortionary taxation. Suppose that the government is able to raise revenue by other means and as a result \(R\) can be reduced \((dR < 0)\). Does it follow that \(dV > 0\)? The answer is not necessarily affirmative.

The negative result just described is illustrative of those in the second-best literature, which led to a general pessimism. Some particular rules that were at one time thought to be intuitively plausible by some economists turned out to be wrong, and this failure received a great deal of publicity. On the other hand, this pessimism does not seem warranted. Even though it is not true, as we have seen that any move to lump-sum taxation is necessarily welfare-improving, there are many directions in which tax changes may be welfare-improving. The issue is one of characterizing the directions of feasible welfare-improving change.

In order to illustrate the possibility of constructive rather than negative second-best results, we may note that it can be shown that under rather general conditions a proportionate reduction in the distortion raises welfare. To see this intuitively, suppose that all taxes are reduced proportionately with a compensating adjustment in lump-sum taxation, \(T\), to maintain overall revenue. If the income-effect were such that the individual became worse off, which could only happen if \(T\) rises, this implies that the excise revenue collected from him goes up as his level of welfare falls. If we rule out this apparently perverse case, then the individual must be better off.

Another example of a "constructive" second-best result is the following. In the context of a simple model, with two consumption goods and labour, the latter being the untaxed *numeraire*, they show that, subject to one qualification, beginning with an initial situation of uniform taxes, welfare can be increased by raising the tax on the
good "more complementary" with leisure, while lowering the other tax so that revenue is unchanged.

The relation between optimal taxation and tax reform can be considered further. For a number of reasons policy-makers may be unwilling, or unable, to make large changes in the tax structure. The reasons include the fact that our knowledge of the relevant production and demand parameters is typically limited to the neighbourhood of the current position, and even here there may be considerable uncertainty. (A factor working in the opposite direction is that there are fixed costs to tax reform - which would point to infrequent changes.) In view of this, in a number of ways the problem may be characterized as one of choosing from neighbouring equilibria - or of designing the optimal tax change subject to a constraint on their overall magnitude.

This raises the question of the process of tax reform, where there is a clear parallel with the literature on planning algorithms. At each point we need to ask whether there is a feasible, welfare-improving step which can be made; and we need to ask whether the sequence of "tax reforms" converges and, if so, what are the characteristics of the limiting solution. Among the general features of their results are the difficulties posed by the basic non-convexity of the set of equilibria (already discussed in Ramsey problem) and the demonstration that inefficiency in the production sector may be necessary temporarily in the process of tax reform. If the process of tax reform is subject to a constraint of the kind described, and is required to be welfare-improving, then the condition of production efficiency that characterizes the full optimum may not apply on the route to the optimum.

**Horizontal Equity**

It is possible that the government may not achieve re-distributive goal by maximizing the social welfare function. In this case horizontal inequity is not ruled out. This is also one of the Ramsey tax problems. It may be possible to raise social welfare by taxing identical individuals at different rates. It is for this reason that the specification of the problem in terms of each individual facing identical tax rates is an assumption, not an implication of welfare maximization. On the other hand, it may not be an unreasonable assumption. But, the most appealing interpretation of horizontal equity may be that it imposes certain prior constraints on the instruments, which the government can employ. The constraint that all individuals face the same
rates of indirect tax may well appear reasonable in this context, and thus provide a justification for this assumption.

The introduction of differences in tastes makes the problem even more severe. This is because the social welfare function approach evaluates taxes in terms of the individual's ability to derive utility from goods and leisure, in contrast to the criterion of "ability to pay", which bases taxation on opportunity sets. When the only differences are those in ability to produce, then maximizing social welfare function leads to redistribution from those with "better" to those with "poorer" sets. There is no conflict between it and the ability-to-pay approach. But this may arise as soon as tastes differ. Suppose individual 1 has a higher productivity, so that his budget constraint lies outside that of individual 2. The ability to pay criterion would indicate that individual 1 paid more tax, but there are obviously numberings of their indifference curves, which lead to the opposite result with the social welfare function.\(^9\)

Suppose that the government were to adopt this version of horizontal equity; what would be the implications for the optimal tax structure? It is popularly believed that it would require uniform taxation. If two individuals are identical in all respects except that one likes chocolate ice cream and the other likes vanilla, a system that taxes chocolate ice cream at a higher rate is felt to be horizontally inequitable. This is not however necessarily correct. Horizontal equity does not imply uniform taxation where the elasticity of demand differs between the goods in question. The horizontal equity implies in fact the elasticity of demand for a good, and the taste differences affecting the consumption of goods only. The condition for horizontal equity is not necessarily, therefore, uniform taxation; only if the price elasticity is the same - as of course it may be in the chocolate-vanilla ice cream case - would uniform tax rates be horizontally equitable.

**Tax Reform**

Tax reform is the process of changing the way taxes are collected or managed by the government. Tax reformers have different goals. Some seek to reduce the level of taxation of all people by the government. Others seek to make the tax system more/less progressive in its effect. Still others may be trying to make the tax system more understandable, or more accountable. Many organizations have been setup to reform tax systems worldwide, often with the intent to reform Income Taxes or Value
Added Taxes or Property Taxes into something considered more economically liberal. Others propose tax systems that attempt to deal with externalities. Various tax proposals have been presented. Among these have been the Flat Tax, Fair Tax, Value Added Tax, and many others.

There are widely recognized indicators of good tax policy to analyze proposed changes. These ten guiding principles are equally important, and should be considered both separately and together when evaluating the current system and reform proposals.

(a) **Simplicity:** The tax law should be simple so that taxpayers understand the rules and can comply with them correctly and in a cost-efficient manner.

(b) **Fairness:** Similarly situated taxpayers should be taxed similarly.

(c) **Economic Growth and Efficiency:** The tax system should not impede or reduce the productive capacity of the economy.

(d) **Neutrality:** The effect of the tax law on a taxpayer's decisions as to how to carry out a particular transaction or whether to engage in a transaction should be kept to a minimum.

(e) **Transparency:** Taxpayers should know that a tax exists and how and when it is imposed upon them and others.

(f) **Minimizing Noncompliance:** A tax should be structured to minimize noncompliance.

(g) **Cost-Effective Collection:** The costs to collect a tax should be kept to a minimum for both the government and taxpayers.

(h) **Impact on Government Revenues:** The tax system should enable the government to determine how much tax revenue will likely be collected and when.

(i) **Certainty:** The tax rules should clearly specify when the tax is to be paid, how it is to be paid, and how the amount to be paid is to be determined.

(j) **Payment Convenience:** A tax should be due at a time or in a manner that is most likely to be convenient for the taxpayer.
FISCAL FEDERALISM

Introduction

There is no coherent theory of Fiscal Federalism but instead there is a series of theoretical federalism developments. There are various models analyzing equity and efficiency implications arising from fiscal location both of consumers and producers, inter-jurisdictional competition and cooperation and multi-jurisdictional community (Musgrave, 1959). A number of propositions on fiscal federalism are suggested by political scientists like Riker, Wheare and others. But our focus is only on economic theories.

What is Fiscal Federalism?

The term fiscal federalism is defined as the application of the theory of public finance in a multi-level public sector organization. It implies a fiscal system which provides for distribution and division of governmental powers, functions and responsibilities between the central government and the government of the individual states of which the federation is composed. Fiscal federalism then also refers to a hierarchical structure of autonomous Governments, in which each person is, simultaneously, a citizen of more than one Government. (Tresch 1981)

From economists’ perspective, all governments are more or less federal; and federalism should not be understood in a narrow constitutional sense. In the words of Livingstone, “Essence of federalism lies not in the institutional or constitutional structure, but in the society itself.”

The principles of fiscal federalism helps to achieve the basic functions as mentioned by Musgrave & Musgrave- allocation, stabilization and distribution of resources to achieve maximum social welfare of the society in a multi-level public sector organization.

Rao and Sen (1996) however considered fiscal federalism as an optimal institutional arrangement for providing public services. It combines the merits of decentralization with the benefits from economies of scale. However, federalism and decentralization are considered as “inextinguishable powers”

A revival of interest in fiscal federalism all over the world can be attributed to the following four factors:
(a) The emergence of the European Economic Union and its success as a distinct regional entity within a large common market underlies the benefits of fiscal decentralization.

(b) Over centralization has been cited as one of the important reason for the decline of the former Soviet Union. Developments in other countries such as Canada, China, Yugoslavia and Ethiopia have forced a review of multilevel finance (Arora 2002).

(c) The growing losses incurred by the public sector enterprises have questioned the efficiency of the Central Government. Economists all over the world have argued for a greater role of the market forces.

(d) Macro economic imbalances in several countries such as Argentina, Brazil, India and Nigeria during 1980s necessitated liberalization of their economy as part of the structural adjustment programme indicated by IMF & World Bank. In India this process started in 1991 with the opening of the economy and allocational role of the State with regard to the fiscal system was passed to the market.

Federalism is thus formulated to fulfill the goal of social welfare maximization when the public services are made available efficiently. This requires that the basic functions of budget policy i.e. allocation, distribution and stabilization are provided to various levels of governments but with economic efficiency. The basic problem of a federalist system involves the jurisdictional control of more than one government over any one person. This problem emerges in both the cases of population, which has mobility and where it is immobile. Even if we assume a non-mobile population it is easy to see potential inconsistencies arising if each government simply tries to follow the single government decision rules of public sector theory. For e.g, one government may try to transfer income from person 1 to person 2, whereas a second government attempts just the opposite. Or one government may encourage expansion of some decreasing cost utility, which is generating ever-increasing pollution externalities on the citizens of a neighbouring government.

A mobile population however multiplies the complications, as people move in response to desirable or undesirable governmental policies. Income redistribution is a commonly used example of a potential problem in this regard. If wealthy residents of town A are asked to provide social services to the poor they may well move to some other town B, which has no such policy of income redistribution. This is often
referred to as the “competition” problem, in that the policies of any one government naturally compete with those of other governments in terms of attracting and maintaining a constituency.

According to Tresch (1981), federalism then requires an addition to public sector theory which tells us how to sort out the various legitimate allocational and distributional functions of government in order to avoid both inconsistencies and the problems associated with intergovernmental competition, while at the same time following the goal of social welfare maximization.

**Economic Theories of Federalism**

As we have already seen that public finance in federal system fulfills three main functions of stabilization, redistribution and allocation.

*Stabilisation function*: It is primarily a central function and local governments have some role to play.

*Redistribution function*: This function is also a central function with local governments playing some role again.

*Allocation function*: It is predominantly a sub-central function. Here public services are provided according to the varying preferences of the people.

The question that is raised is how do we maximize welfare in assigning allocative functions? Social welfare maximization in assigning allocation functions can be explained by using some models. These models are: -

(a) Breton’s perfect mapping model.
(b) Olson’s fiscal equivalence model.
(c) Oates’ decentralization theorem.
(d) Tiebout’s hypothesis.

**Breton’s Perfect Mapping Model**

Breton (1995) has highlighted the work of Salmon (1987) which examines the interaction between incentives of government decision makers and the existence of competition among governments. The argument is that competition among governments creates incentives for their decision makers and it leads to lower prices and higher welfare for consumers. The idea is that citizens of a jurisdiction can use
information about the goods provided elsewhere to evaluate the performance of their own government in the manner of a contest or tournament (Lazear & Rosen, 1981).

Therefore, competition among governments not only affects policies to attract or keep citizens, but it also interacts with electoral incentives. Accordingly, ‘each government has an incentive to do better than governments in other jurisdictions in terms of levels and qualities of services, of levels of taxes or of more general economic and social indicators’. Empirically, whether this happens (in the Indian context) depends on ‘the possibility and willingness of citizens to make assessments of comparative performance...and the impact these assessments have on the well being of politicians’ (Salmon 1987). Breton argues that the ‘Salmon incentive mechanism’ is quite important in understanding the diffusion of policies and programmes among jurisdictions in federations. To the extent that mobility costs restrict ‘voting with one’s feet’ in India, electoral incentives are more important, and performance measures that also looks at relative performance can strengthen or refine electoral incentives.

Olson’s Fiscal Equivalence Theorem

Olson has posed the problem regarding the principles that guide the development of a rational pattern of jurisdictional responsibility, on the Central government or a systematic reliance on local governments. Olson’s approach analyses the necessary conditions for the allocative efficiency in the provision of collective goods by considering stabilization and income redistribution functions as most appropriate to Central governments.

The analysis is based on certain assumptions, many of which are dropped later on. The first assumption is that the government, authorities and other institutions produce only collective or public goods, which are defined as goods which do not exclude non-purchasers from their consumption.

A second assumption is that every collective good affects some clearly delineated group or area, which can be as large as the entire population of the earth or as small as the population of the smallest community. A third assumption is that there is no complementarity in production among different public goods, in the sense that government that provides one collective good at lower costs than a unifunctional government could have.
Based on these assumptions Olson has developed a “pre-model” and not a “model” and has hope that it inspires economists to construct elaborate and realistic models based on less restrictive assumptions.

According to Olson, it is highly likely that a great discrepancy between the boundaries of a collective good and those of the jurisdiction that provides it leads to different problems. In every case, one or more of the following three logically possible relationships between the “boundaries” of a collective good and the boundaries of the government that provides it, will apply:

(a) the collective good reaches beyond the boundaries of the government that provides it;
(b) the collective good reaches only a part of the consistency that provides it;
(c) the boundaries of the collective good are the same as those of the jurisdiction that provides it.

In the first two cases where the boundaries of a government and a collective good it provides do not coincide, there are systematic forces that work against allocative efficiency. In the first case, these forces create external economy and in the second situation internality arises. According to Olson, the third situation is a Pareto-optimal solution when there can be a match between those who receive the benefits of a collective good and those who pay for it. However then this requires a separate governmental institution for every collective good with a unique boundary. Olson has defined this match as “fiscal equivalence”.

According to Olson, both the “centralizing” and “decentralizing” ideologies are wrong and leads to inefficiencies. If there are several levels of government, this large number of governments can reduce the disparities between the boundaries of jurisdictions and the boundaries of collective goods. Thus, there is a need for both centralized and decentralized government in the same framework. Moreover, federal subsidies and grants to State and local governments should rise as they could mean that they are the most efficient purveyors of some types of collective goods. Although Olson has not transformed this theory to policy but has concluded that “the existing network of governments and subsidies has many faults, but is nonetheless probably better than most of the diverse arrangements that have been proposed to replace it”.

Oates Decentralisation Theorem

Oates (1972) has presented an “ideal model where each level of government, possessing complete knowledge of the tastes of its constituents and seeking to
maximize their welfare, would provide the Pareto-efficient level of output...and
would finance this through benefit pricing.” This Oates calls it a case of Perfect
Correspondence in the provision of public goods.

Following Oates, assume that there are two natural sub-groupings A and B,
within the total population such that all individuals within a subgroup have identical
preferences, but that tastes vary across A and B. Suppose in addition that society
produces two purely private goods, X and Y that are both consumed by all members
of the society. However, despite the fact that Y is a purely private good, it happens to
be provided by a government, either national\local. Assume, finally, that the
distribution of income is optimal, so that each subgroup can be viewed as containing a
single individual. Under these assumptions social welfare maximization can be
presented as follows:

Max: \( U^A( X^A, Y^A ) \)
\( ( X^A, Y^A, X^A, Y^A ) \)

s.t. \( U^B( X^B, Y^B ) = \bar{U} \)
\( F( X^A+X^B; Y^A+Y^B ) = 0 \)

The first-order conditions for this problem are:

\[ MRS^X^A, Y^A = MRS^B, X^B, Y^B = MRT_{X,Y} \quad (1) \]

Moreover, with different tastes, \( X^A \neq X^B \) and \( Y^A \neq Y^B \) in general, at the optimum.

Given the model as it stands, it obviously makes no difference whether a
single national government provides \( y^A \) and \( y^B \) according to 1 or whether each sub
groupings forms its own government and individually satisfies:

\[ MRS^A, X^A, Y^A = MRT_{X,Y} \quad (2) \]
\[ MRS^B, X^B, Y^B = MRT_{X,Y} \quad (3) \]

Suppose, however, the national government were constrained to offer equal amounts
of Y to each subgroup so that \( y^A = y^B \) with national provision of Y. Since, in general,
\( y^A \neq y^B \) at the social welfare optimum, this would represent an additional binding
constraint on the formal general equilibrium model, implying a lower level of social
welfare at the optimum. Then the first order conditions become:

\[ MRS^A, X^A, Y^A - MRS^B, X^B, Y^B = MRT_{X,Y} + \lambda_2 Fx \quad (4) \]

Where
\( \lambda_2 = \) The Lagrangian multiplier associated with society’s production
possibilities, \( F ( ) = 0. \)
\(\lambda_1 = \) The lagrangian multiplier associated with the new constraint, \(y^A = y^B\).

Decentralization theorem can also be explained with the help of the Figure 3.2. Suppose there is a public good that has two be allocated between two jurisdictions and the demand curves of the two jurisdictions are \(D_1\) and \(D_2\). The economies of scale are assumed to be constant and so Price \(P\) is also constant and \(P=MC\) and it is the supply curve also, as shown in the Figure 3.2. With \(D_1\) and \(D_2\) demand curves for the two jurisdictions, \(Q_1\) and \(Q_2\) are the respective quantities produced by the two jurisdictions and the equilibrium points are \(A\) and \(E\).

Suppose the Central government comes into picture and centralizes the solution by providing the goods themselves. In that case, the overall demand curve \(D\) will be taken into account and optimal point will be \(Q_C\). So overall demand curve \(D\) is an average of the two demand curves \(D_1\) and \(D_2\).

It is observed that the centralization process has resulted in welfare loss for both the jurisdictions. For jurisdiction 1 new demand curve means less amount of quantity to be produced and causes loss of welfare for them. There is loss for jurisdiction 2 also because of its existing inefficient system resulting in low production.

The conclusions that can be drawn from the analysis are that the closer the two demand curves \(D_1\) and \(D_2\) of the two jurisdictions are, less will be the welfare loss. So when tastes and preferences are different for different jurisdictions, centralization leads to inefficiencies/less welfare. And, the closer the two \(D_1\) and \(D_2\) jurisdictions are, less will be the need for federalism.

However, the results can be different if there are economies of scale. Than the question is raised as how to determine optimal jurisdiction when economies of scale are not constant.

This can be explained with the help of the next Figure 3.3 on Optimal Jurisdictions. In the Figure 3.3, y-axis shows the welfare of the society as the size of the jurisdiction on x-axis increases. In scale economies, welfare gain increases as jurisdictions become larger and larger but to a point only. The curve OA shows the welfare gains from cost saving method used but these returns are first increasing, then remains constant and finally diminishing returns arises as the size goes on increasing. The curve OB shows welfare loss when the preferences are just added up, as the size of the jurisdiction is made larger. OL shows the net welfare gain to the society.
Optimal Jurisdictions

Figure 3.3

Welfare gains from cost savings

Net welfare gain

Welfare loss due to preference aggregation

Percentage of fiscal autonomy

Welfare

Y

X

O
The Tiebout model, also known as Tiebout sorting, Tiebout migration or Tiebout hypothesis was a concept developed by economist Charles Tiebout in his article “A Pure Theory of Local Expenditure” (1959). It's an example of Public Choice theory model. Tiebout describes municipalities within a region as offering varying baskets of goods (government services) at a variety of prices (tax rates). Given that individuals have differing personal variations on these services and varying ability to pay the attendant taxes, individuals will move from one local community to another until they find the one which maximizes their personal utility. The model states that through the choice process of individual's jurisdictions, the residents will determine an equilibrium provision of local public goods in accord with the tastes of residents, thereby sorting the population into optimum communities. The model has the benefit of solving two major problems with government provision of public goods: preference revelation and preference aggregation.

The Tiebout model relies on a set of basic assumptions. The primary assumptions are that consumers are free to choose their communities enjoying perfect mobility and perfect information. This essentially means that they can move from one community to another community at no cost, and that they know everything they need to know about services provided by local governments. The Tiebout model has been shown to be the most accurate in suburban areas with many different independent communities. Moving between communities in these areas tends to have the lowest costs, and the set of possible choices is very diverse. In areas subject to rural flooding, Tiebout sorting explains why more affluent residents live in communities protected by river levees, while poorer residents tend to live without those expensive and rarely utilized protections.

Fiscal Federalism in India

The Constitution of India formulated over fifty years back after India gained Independence; to govern the country is still in operation (For a brief history refer to Annexure A.3.2). It is basically federal in nature with certain unitary features due to which it is at times also called quasi-federal. The federal form of government witnesses Constitutional division of functions and powers between two levels of government i.e Central and State level. Since 1992 another level of government - Panchayats and Municipalities came into existence. In federal governments, inter
governmental fiscal relation or fiscal federalism, which implies the demarcation of revenue and expenditure functions among different layers of government has gained wide attention.

Fiscal Federalism, thus, can be defined as an optimal institutional arrangement where principles of economics are applied for the provision of public services in a federal system. The basic issues dealt by fiscal federalism are (a) assignment of function and sources of finance between governmental levels, (b) evolving mechanism and policy instruments to resolve fiscal imbalances, arbitrate inter governmental spillovers and foster harmonious and yet competitive inter governmental relationships (Rao and Sen, 1996). In recent years, fiscal federalism has evolved wide interest in almost all parts of the world in both federal as well as unitary forms of governments across developed and developing countries.

However, the study of fiscal federalism in a developing mixed economy like India assumes additional significance. In developed economies market plays a significant role in the development of the economy and government intervenes in providing public services and in case of market failure too. In contrast, in India the government has taken over the main responsibility of allocating resources in accordance with the policies of social welfare maximization formulated by the policy makers. The emphasis on multi level physical planning requires financial planning as well. Besides, given that historically, colonial considerations did not necessarily enable resource allocation across different regions according to their endowments, fiscal federalism in the Indian context is perceived to play a more dynamic economic role than what is seen in many of the other federations. (Hicks 1969, Scott 1964).

In India the process of economic planning followed after Independence resulted in the centralization of economic power with Central government as the main authority. The government followed various regulations and controls in the field of agriculture, industries, infrastructure, foreign sector, banking etc. resulting in a low profile role of the State governments. However, since 1991 when the liberalization process started the Center-State financial relations also witnesses far-reaching changes. Market system was assigned a greater role in economic activity and as a result economic powers and functions of the central government were decentralized. The State and Local governments assumed greater role in resource allocation, market
regulation along with production and distribution of public services produced according to the preference of the residents of respective jurisdictions.

The issues of fiscal federalism and decentralization have assumed greater importance since 1990s. Many countries on the path of liberalization and globalization considered less concentration of power in the hands of Central government as a remedy for all the ills of the developing countries. Decentralization of governmental functions allows better matching of public goods supply to local needs, tastes and preferences and thus increases social welfare. Also, mobilization of resource at the State/local level reduces financial burden of the Central government.

**Assignment Problem: Division of Tax and Expenditure Functions**

The theory of fiscal federalism can be viewed by taking into consideration the assignment of function and powers between the Centre, State and local governments. Assignment of power means transfer of functions and power from a higher level to a lower level of government. The assignments of functions [includes revenues (taxes) and expenditure] divide the areas of activity of different governmental units. Such fragmentation (both vertical and horizontal) of functions and powers has certain advantages. It provides fiscal autonomy to each level of government: Centre, State or local, to carry out the functions assigned to them on a more efficient line. Also it reflects voter’s preferences. More decentralized the government greater is the opportunity of meeting politic-economic aspirations and expectations of people at various levels. However, such a division of revenue and expenditure functions must be guided by the principles of efficiency, equity, economy, adequacy and elasticity, autonomy, responsibility and fiscal discipline to maintain politico economic equilibrium among them. According to Hyman (1999) “In a normative sense, the problem of fiscal federalism is to find the efficient pairing of responsibilities for deciding how much of and what kinds of government provided goods and services to produce with geographically defined subsets of the population.” However, the sharing of functions and powers in a multi-level governmental system requires guidance from political, social and economic circles along with legal and constitutional institutions.

In the Constitution, as already pointed out, the Central government enjoys both overwhelming and overriding powers. Most of the productive and broad based taxes including taxes on income and wealth from non-agricultural sources, corporation tax, excise duty on manufacturers (excluding those on alcoholic liquors,
opium, hemp and other narcotics) and customs duty have been assigned to the Centre. The State can levy a broad based sales tax but the Centre has the power to levy union excise duty on virtually the same base and thus can affect the revenue of the States to some extent. Further, Centre restricts States’ power to borrow from the market. Thus, financial powers are concentrated in the Central government and responsibility with the States. With a view of this Constitutional arrangement, it can be rightly said that Indian Constitution exhibits “a federation with a strong centralizing tendency”.

The total amount of expenditure and revenue raised by the Central and State governments is summarized in Tables 3.1 & 3.2 (For details refer Annexure A. 3.1). It is seen that in aggregate the States got about 55.8% of total revenue receipts but incur about 61% of total expenditures in 2003-04. The major taxes levied exclusively by the Centre consist of excise duties 37%, corporation tax 26%, customs duty 19% and income tax 17% of total tax revenue in 2003-04. (Table 3.2). Among the State taxes, the revenue from sales tax constitutes almost 31%. Other State taxes individually constitute around 10% of total tax revenues. Although on an average, the States incur 61% of total expenditures, their actual spending is much lower since they have to spend on central sector and centrally sponsored schemes and the outlay on all such schemes as also the matching requirements are decided entirely by the Centre.

<table>
<thead>
<tr>
<th>Year</th>
<th>Combined exp. (Rs. b)</th>
<th>State's total exp. (Rs. b)</th>
<th>State's share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>57.17</td>
<td>43.41</td>
<td>75.93</td>
</tr>
<tr>
<td>1975-76</td>
<td>118.47</td>
<td>65.22</td>
<td>55.05</td>
</tr>
<tr>
<td>1980-81</td>
<td>237.11</td>
<td>141.36</td>
<td>59.62</td>
</tr>
<tr>
<td>1985-86</td>
<td>560.31</td>
<td>313.62</td>
<td>55.97</td>
</tr>
<tr>
<td>1990-91</td>
<td>1229.5</td>
<td>678.6</td>
<td>55.19</td>
</tr>
<tr>
<td>1995-96</td>
<td>2456.35</td>
<td>1404.99</td>
<td>57.2</td>
</tr>
<tr>
<td>2000-01</td>
<td>4853.88</td>
<td>2719.66</td>
<td>56.03</td>
</tr>
<tr>
<td>2001-02</td>
<td>5364.7</td>
<td>3054.43</td>
<td>56.94</td>
</tr>
<tr>
<td>2002-03</td>
<td>5851.07</td>
<td>3177.8</td>
<td>54.31</td>
</tr>
<tr>
<td>2003-04</td>
<td>6539.77</td>
<td>3976.52</td>
<td>60.8</td>
</tr>
</tbody>
</table>

Source: Government of India Ministry of Finance, Indian Economic Statistics (Various Issues)
<table>
<thead>
<tr>
<th>Year</th>
<th>Personal Income tax</th>
<th>Corporation tax</th>
<th>Customs</th>
<th>Union Excise Duties</th>
<th>Total Central taxes</th>
<th>Sales tax</th>
<th>State Excise</th>
<th>Vehicle tax</th>
<th>Total State taxes</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>1.14</td>
<td>3.7</td>
<td>5.24</td>
<td>13.69</td>
<td>23.77</td>
<td>7.09</td>
<td>1.96</td>
<td>1.1</td>
<td>10.18</td>
<td>33.95</td>
</tr>
<tr>
<td>1975-76</td>
<td>4.8</td>
<td>8.62</td>
<td>14.19</td>
<td>29.88</td>
<td>57.49</td>
<td>19.44</td>
<td>4.42</td>
<td>2.05</td>
<td>24.68</td>
<td>82.17</td>
</tr>
<tr>
<td>1980-81</td>
<td>5.04</td>
<td>13.11</td>
<td>34.09</td>
<td>37.23</td>
<td>89.47</td>
<td>38.88</td>
<td>8.38</td>
<td>4.17</td>
<td>49.53</td>
<td>139</td>
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<td>1985-86</td>
<td>6.63</td>
<td>28.65</td>
<td>95.26</td>
<td>73.3</td>
<td>203.84</td>
<td>84.29</td>
<td>20.71</td>
<td>8.32</td>
<td>109.74</td>
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<tr>
<td>1990-91</td>
<td>12.56</td>
<td>53.35</td>
<td>206.44</td>
<td>141</td>
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<td>47.98</td>
<td>15.35</td>
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</tr>
<tr>
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<td>357.57</td>
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<td>787.38</td>
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<td>86.06</td>
<td>37.41</td>
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<td>1249.11</td>
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<tr>
<td>2000-01</td>
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<td>251.78</td>
<td>341.63</td>
<td>497.58</td>
<td>1328.65</td>
<td>733.64</td>
<td>158.26</td>
<td>65.06</td>
<td>907.18</td>
<td>2235.83</td>
</tr>
<tr>
<td>2001-02</td>
<td>221.05</td>
<td>251.3</td>
<td>283.4</td>
<td>544.7</td>
<td>1300.48</td>
<td>798.05</td>
<td>171.5</td>
<td>76.54</td>
<td>961.83</td>
<td>2262.3</td>
</tr>
<tr>
<td>2002-03</td>
<td>368.66</td>
<td>461.7</td>
<td>448.52</td>
<td>823.1</td>
<td>2415.8</td>
<td>860.38</td>
<td>188.34</td>
<td>82.4</td>
<td>1064.99</td>
<td>3480.8</td>
</tr>
</tbody>
</table>

Source: Same as in Table 3.1
Since the major sources of tax revenue were put in charge of the Central government, the Constitution did realize that the resource of the States would be inadequate to carry out their functions. Accordingly, it provided for the compulsory sharing of Income tax receipts (according to Article 270), sharing of Excise duties (Article 272) between the Centre and the States and grants-in-aid of the revenue to the States (Article 275). However the total share of the States as well as its allocation among them are determined by an independent quasi-judicial body, the Finance Commission appointed by the President of India every five years (or earlier).

However, the centralization of economic power in the hands of the Centre is justified on various grounds. The economic and political situation present at the time of Independence necessitated a strong Centre. According to the Sarkaria Commission on Center-State Relations, 1988 “The primary lesson of India’s history is that, in this vast country, only that polity or system can ensure and protect its unity, integrity and sovereignty against external aggression and internal disruption, which ensures a strong Centre with paramount powers, accommodating at the same time, its traditional diversities. This lesson of history did not go unnoticed by the framers of the Constitution. Being aware that, notwithstanding the common cultural heritage, without political cohesion, the country would disintegrate under the pressure of fissiparous focus, they accorded the highest priority to the ensurance of the unity and integrity of the country”. Also there exist wide valuations economically and industrially among different States of the country. This required a regional balanced development and a coordination of the efforts of different States, which could be effectively implemented by a financially and otherwise strong Centre.

The Constitutional allocation of taxation powers in favor of Central government is based on economic and administrative rationale. Taxes, which have an inter-State base and where uniform rates is desirable to facilitate trade and industry are assigned to the Centre. Taxes, which have a local base and benefits regional jurisdiction, are with the States. Broadly speaking, taxes on production with some exceptions are levied by the Centre and taxes on sale and purchase by the State governments. The distribution of taxation powers between the Centre and the States is meant to minimize tax problems in a federal setup such as double taxation, tax rivalry among States, duplicate tax administration, excessive compliance costs and tax evasion.
The centralization of economic power in India is not merely an outcome of constitutional assignments. The public sector was expected to play a major role in the development of the economy after Independence. The heavy industry based import substituting industrialization strategy with a dominant public sector necessarily augmented the economic powers of the Centre. While public sector allocation was determined by the Planning Commission various physical controls like rationing of foreign exchange, exchange rate regulations, industrial licensing policy were introduced to expand the role of the public sector. Though the States were allowed to prepare their plans but in accordance with national objectives and norms. In addition, the States’ priorities were also influenced by a number of centrally sponsored schemes and shared cost programmes. In the words of Chelliah (1991), "there are few parallels of such tremendous concentration of power in a few hands. This economic power consists of not only the rights conferred by ownership, but also the right to control every major aspects of economic activity in the country. The feeling of helplessness and near subjugation experienced by the States, especially those at the periphery of power, arises from the spectre of overwhelming economic power wielded by the Centre".

Thus, financial powers are concentrated in the Central government and responsibility with the States. The grievances of the States has been that the Centre is encroaching on the areas exclusively in the State list allotted to them under the Constitution and playing a dominant role in the sphere allotted to them for concurrent jurisdiction. They have become dependent on the Centre for meeting their financial requirements. About 60-65% of the resources of the States comprise transfers of the Central government in the form of statutory and non statutory transfers i.e. tax revenue devolutions, loans, plan assistance, grants and non-plan assistance of various kinds.

Even the statutory transfer of revenue by way of shared taxes and statutory grants involves Central influence. These transfers are made on the recommendations of the Finance Commission, which is appointed by the Central government. Its terms of references and guidelines are determined by the Centre and not all its recommendations are accepted.

The above-mentioned assignment system of tax and expenditure functions has resulted in fiscal imbalances and fiscal overlapping in these functions, which may be
vertical (between the Centre and the States) and horizontal (inter jurisdictional imbalance or inter State difference in budgetary receipts and expenditure arising out of differential per capita fiscal capacities).

**Fiscal Imbalances**

Fiscal imbalance refers to the mismatch between own revenue raising capacity and expenditure needs at different governmental units. In a federal form of government, usually, there are two types of fiscal imbalances; the imbalances at different levels of the government (inter-governmental) are known as vertical fiscal imbalances while those at different units of the same level of government (inter-jurisdictional) are known as horizontal fiscal imbalances.

According to Rao and Sen (1996) fiscal imbalance can be measured in simple terms taking into account actual revenues and expenditures.

\[ l_i = E_i - R_i \]

Where \( l \) = the extent of imbalance

\( E_i \) = expenditures incurred

\( R_i \) = revenues raised by the concerned unit of government itself

with the subscript \( i \) representing the unit of government concerned. Such a measure, of course, has to be normalized to make it comparable across governmental units. The comparable measure would then be

\[ l_i = \frac{E_i - R_i}{E_i} = 1 - \frac{R_i}{E_i} \]  

(1)

However, the above measure has a condition attached to it. If it is interpreted as a measure of fiscal independence then equation (1) needs to be modified to take into account the extent to which the concerned unit of government actually controls the fiscal variable.

Although Bird (1973) believed that the measures of fiscal imbalance are not quite successful since all aspects of a particular problem cannot be numerically explained. But according to Rao and Sen (1996), perfect matching of revenue sources and expenditure responsibilities is not possible and some sort of fiscal imbalance makes aware of higher or lower degree of matching of revenue and expenditure policies.
Vertical Fiscal Imbalance

Vertical fiscal imbalance is usually given primary importance in discussions of fiscal imbalances probably because it takes into account the most crucial issue of federal finance - that of mismatch in the assignment of taxing powers and expenditure responsibilities between two levels of government. In India there is a fairly high degree of vertical imbalance. Vertical imbalance is caused to a certain extent by “centralization” of revenue sources. The constitutional arrangement of assigning higher expenditure responsibilities to the States and relatively less revenue sources has resulted in vertical imbalance. The Central government in India controls monetary policy and deficit financing which has also given rise to vertical imbalance. Effective Central dominance on the expenditure pattern of the State, with importance given to centrally sponsored plan schemes and traditional areas of the States like agriculture, rural development etc causes further imbalance.

Apart from these reasons of vertical imbalances, there are certain traditional reasons also like uneven distribution of natural resources, economies of scale in tax collection costs and tax avoidance when taxed by regional governments. Even the States have failed to raise sufficient revenues to finance their increasing expenditure. Agricultural taxation as a State tax, for example has not been levied by the States at all. Tax competition among States for more and more investment has resulted in less revenue for all the States. States then require federal transfers and consequently higher Central taxation causing vertical imbalance. Administrative convenience has often prevailed over economic considerations and has resulted in narrower tax bases. All this clearly reflects the erosion of State autonomy and fiscal independence in India. (Rao & Sen, 1996).

Horizontal Fiscal Imbalance

Indian economy also witnesses horizontal fiscal imbalances on a large scale and is yet another reason cited for vertical imbalances. The horizontal imbalances have arisen mainly from inter-State disparities in revenue capacity and effort as well as in expenditure needs. In India, most of the States are relatively homogenous and a few hill States (seven north eastern states, Sikkim, Jammu & Kashmir and Himachal Pradesh) form a distinct category called the ‘special category’ States. These special category States are characterized by small industrial and unorganized sectors and the cost of providing various public goods and services is relatively high in these States.
As a result, their revenue capacity is low compared to their expenditure; leading to fairly high degrees of fiscal imbalance. Even the relatively homogenous States show wide disparities in their level of social and economic development and their fiscal situation also shows wide differences (Rao & Sen 1996).

Inter-State tax exportation is yet another factor which causes horizontal imbalances in the economy. The States with a strong industrial base and supplying products to other States are able to export a significant portion of their tax revenue through the taxes built into the cost of these products and also through the origin based central sales tax (CST). This results in perverse transfer of resources from the less developed, net importer States to the others. The higher ability of high-income States to put up the required funds for obtaining matching transfers also has enhanced horizontal imbalances.

Fiscal imbalances both vertical and horizontal affect the harmonious coordination of Central, State and local governments. In absence of a coordinated approach among the different levels of government affects the proper functioning of the economy. So the need arises to reduce fiscal imbalances at both inter governmental and inter jurisdictional level. In this regard, inter governmental or fiscal transfers are undertaken by the Central government as an instrument to resolve these imbalances.

**Inter-Governmental or Fiscal Transfers**

Inter-governmental transfers imply transfer of revenue from the federal government to the unit government to carry out their constitutional functions. Inter governmental transfers aims at a Pareto-optimal condition where income is redistributed among sub-Central governments in such a way to make anyone better off without making someone worse off.

This implies a redistribution of income among unit governments in such a way that benefits to the poor and small units are sufficient to maintain their interest in the federation while sacrifice by the big and rich units is not considered by them to be greater than the benefits accruing from federation. These fiscal transfers are employed by the Centre to influence the pattern of spending of unit governments or to implement its expenditure plans through these unit governments as agencies. However, the volume and distribution of transfers depends on political and historical
factors as much as economic objectives which are considered being the sole consideration.

Fiscal Transfers are recommended to fulfill the following objectives: - resolve vertical and horizontal imbalances; fiscal equalization; correcting spillovers;

**Mechanism of Inter-Governmental Transfers**

In most of the federations two common forms of fiscal transfers are undertaken – the general-purpose transfers and specific purpose transfers. A general-purpose transfer from the Central to sub-Central units is done to resolve vertical and horizontal imbalances. These are unconditional transfers, which tries to offset the fiscal disadvantages arising from lower revenue capacity and higher unit cost of providing public services. Specific transfers, on the other hand, are intended to set the prices right to ensure optimal provision of sub-Central services having spillovers (Rao and Sen, 1996).

In India, however, there are three types of transfers from the Centre to States. First, the transfers recommended by the Finance Commission; second, the plan transfers by the Planning Commission; and the third, transfers for several Central sector and centrally sponsored schemes formulated by various union ministries.

**The Finance Commission Transfers**

**The Terms of Reference**— Under Article 280 of the Constitution, the President appoints the Finance Commission every five years or earlier to make recommendations as to the following matters: -

(a) "the distribution between the Union and the States of the net proceeds of taxes which are to be or may be divided between them and the allocation between the States of the respective shares of the proceed;

(b) the principles which should govern the grants-in-aid of the revenues of the States, out of the Consolidated fund of India and the sums to be paid to the States which are in need of assistance by way of grants-in-aid of their revenues under Article275 of the Constitution;

(c) the measures needed to augment the consolidated fund of a State to supplement the resources of the panchayats/municipalities on the basis of the recommendations made by the Finance Commission of the State;
any other matter referred to the Commission by the president in the interest of sound finance. Under this sub-clause, the Finance Commissions have been asked to examine and make recommendation on matters such as the distribution of certain assigned taxes like estate duty on non-agricultural land, grants in lieu of tax on railway passenger fares, additional excise duties in lieu of sales tax on sugar, textiles and tobacco, to assess States’ indebtedness and suggest corrective measures to be taken and to review the policy and arrangements in regard to financing of relief expenditures by the States affected by natural calamities and recommend appropriate remedial measures.

During the preparation of the report of Eleventh Finance Commission (2000-2005), two important developments took place, which had a bearing on the work of the Commission. Firstly, an additional term of reference was added. It was as follows: “In particular the Commission shall draw a monitorable fiscal reforms programme aimed at reduction of revenue deficit of the States and recommend the manner in which the grants to States to cover the assessed deficit in their non-plan revenue account may be linked to progress in implementing the programme.”

The second important development was the 80th Amendment to the Constitution, which provides for sharing of the net proceeds of all union taxes and duties with the state. This has changed the Article 269, which provided for levy and collection of some taxes by the government assigned to the States. The 80th Amendment also changed the terms of reference relating to Article 269 (Report of the 11th Finance Commission).

So far, eleven Finance Commissions have made their recommendations and, by large, their recommendations have been accepted by the government. Yet, the working of these Commissions, the design of the transfers formulated by them and the approach and methodology adopted by them in making their recommendations are severely criticized. However, the main criticisms are: (i) those relating to attempts to restrict the scope of the finance Commission through the Presidential terms of reference: (ii) those on the approach and methodology employed by the commissions and implications of the transfer scheme evolved by them.

The Plan Transfers: - Plan transfers from the Centre consist of grants and loans given to the States. In earlier years, these were distributed largely at the discretion of the center. However, since 1969, the plan assistance has been allocated on the basis of
the Gadgil formula’ approved by the National Development Council modified from
time to time. The latest modification in the formula was done in December 1991.
According to this, 30% of the funds available for distribution is kept apart for the
special category States. Assistance is given to them on the basis of plan projects
formulated by them and 90% of the transfer is given by way of grants and the
remaining part as loans. The remaining 70% of the total funds available for the major
States is distributed with 60% weight assigned to population, 25% to per capita SDP,
7.5% on good fiscal performance and the remaining 7.5% to special problems of
states. For the major States, the assistance is given by way of grants and loans in the
ratio of 30:70.

The Planning Commission makes five year plan investments for each of the
sectors and the States. With this background and estimated resource availability, the
States than formulate their respective annual plans for each year which is approved by
the Planning Commission. However, transfers given to the States for plan purposes, as
also their grant loans components are determined independently of the required plan
investments, their sectoral composition, resources available with the States and their
fiscal performances.

Various studies have shown that the statutory transfers have an equalizing
tendency but the non-plan loans tend to be disequalising. Consequently, after the
statutory transfers and non-plan loans from the Centre, it is seen that high-income
States have larger per capita resources than the poorer States. This is further enhanced
by transfers for State plan and centrally sponsored schemes and in the end, average
per capita plan outlay in the high income States is almost twice as much as in the
middle and low income States (Rao & Sen, 1996).

Centrally Sponsored Schemes: - Another major item of Central transfer to States is
the schemes launched by the Centre and implemented by the State governments with
Central assistance. In fact, these transfers are widely criticized as they are at the
discretion of the Centre and the conditions imposed by the Centre including the
contents, coverage, expenditure pattern and staffing of such schemes affects States’
own priorities and policies. In response to these criticisms and States’ objection, the
National Development Council (NDC) appointed a committee to review these
schemes, which recommended lowering of these schemes in terms of both number
and coverage. This will help in consolidating number of schemes into specific purpose transfers and will provide more powers to the States in use of these funds.

In India, fiscal transfers have played an important role in resolving imbalances. Transfers from the Central government constitute a significant part of State finances. The Table 3.3 (For details refer Annexure A.3.2) shows that in 2003-04 they finance about 20% of the States current expenditure; their share in States’ total revenues is 35% and almost 17.4% of the revenues collected by the Central government is transferred to the States by way of tax devolution and grants. The figures show that the transfers are growing at a slower rate than the revenues collected by both the Centre and the States. The design and implementation of fiscal transfer schemes suffer from a number of important weaknesses lowering the success rate of these schemes. Firstly, the existence of multiple channel of transferring central resources resulted in wasteful duplication in functioning. Lack of coordination on the part of Finance and Planning Commissions has affected the main objectives of these transfers.

### Table 3.3 Transfer of Resources from Centre to the States

<table>
<thead>
<tr>
<th>Year</th>
<th>States total exp. (Rs. b)</th>
<th>Net transfers to States (Rs. b)</th>
<th>Share of transfers in exp. (%)</th>
<th>States total revenue (Rs. b)</th>
<th>Share of transfers in revenue (%)</th>
<th>Share of transfers in central revenue (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>43.41</td>
<td>17.37</td>
<td>40</td>
<td>23.01</td>
<td>75.49</td>
<td>31.5</td>
</tr>
<tr>
<td>1975-76</td>
<td>65.22</td>
<td>34.48</td>
<td>52.86</td>
<td>51.72</td>
<td>66.66</td>
<td>27.1</td>
</tr>
<tr>
<td>1980-81</td>
<td>141.36</td>
<td>88.17</td>
<td>62.37</td>
<td>104.56</td>
<td>84.32</td>
<td>34.6</td>
</tr>
<tr>
<td>1985-86</td>
<td>313.62</td>
<td>202.92</td>
<td>64.7</td>
<td>220.87</td>
<td>91.87</td>
<td>34.3</td>
</tr>
<tr>
<td>1990-91</td>
<td>678.6</td>
<td>376.97</td>
<td>55.55</td>
<td>446.8</td>
<td>84.37</td>
<td>32.1</td>
</tr>
<tr>
<td>1995-96</td>
<td>1404.99</td>
<td>656.99</td>
<td>46.76</td>
<td>933.2</td>
<td>70.4</td>
<td>31.7</td>
</tr>
<tr>
<td>2000-01</td>
<td>2719.66</td>
<td>984.28</td>
<td>36.19</td>
<td>1686.62</td>
<td>58.36</td>
<td>26.1</td>
</tr>
<tr>
<td>2001-02</td>
<td>3054.43</td>
<td>1065.43</td>
<td>34.88</td>
<td>1808.73</td>
<td>58.9</td>
<td>25.4</td>
</tr>
<tr>
<td>2002-03</td>
<td>3177.8</td>
<td>979.36</td>
<td>30.82</td>
<td>1964.94</td>
<td>49.84</td>
<td>22.1</td>
</tr>
<tr>
<td>2003-04</td>
<td>3976.52</td>
<td>800.66</td>
<td>20.13</td>
<td>2307.1</td>
<td>34.7</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Source: Same as in Table 3.1

Second, again the absence of a clear and coordinated approach for distributing unconditional transfers to the States has affected the applicability of these transfers. The general purpose transfers given by the Planning Commission is totally independent of the planning process as it does not take into account either the States
required plan outlays on the resources available to them. In case of specific purpose
transfer too, the designing of the schemes in terms of the services chosen for
equalization, its grant-loan components of assistance appears to be ad-hoc.

The specific purpose transfers given by the Commission too have not been
clearly designed to ensure minimum level of services in all the States or to offset
spillovers. Also the lack of correspondence between revenue raising and expenditure
decisions has resulted in inefficient fiscal management at both Central and State
levels. The institutional system for making fiscal transfers to the States should follow
an integrated coordinated approach. The two Commissions should not only avoid
duplication of work but also that they should not adopt two sets of assumptions
regarding the States’ revenues and expenditures.

**Fiscal Overlapping and Harmonization of Tax System in Indian Federation**

Another problem faced by the Indian tax system is of Fiscal overlapping. It
implies concurrency in tax, expenditure and regulatory functions among different
governmental units. The main reason for the occurrence of fiscal overlapping in any
federation is the sharing of common functions by inter-governmental units. To carry
out these functions various policies are to be formulated and it requires concurrent
jurisdiction. Even when there is no need for a joint jurisdiction and Constitution
clearly mentions the functions, there may still be serious overlapping due to economic
interdependence between vertical and horizontal governmental units. Fiscal
overlapping can be vertical - between different levels of government; Centre and
States or horizontal among different units within each level.

**Vertical Fiscal Overlapping**

In the Indian context, various functions regarding tax and expenditure policies
results in disharmony between the Centre and the States not only due to Constitutional
arrangements but also because of interdependence in the fiscal operations between
them. For example, fiscal policy pursued by the Central government has its impact on
the budgetary position of the States. An expansionary fiscal policy is generally
financed by large deficits, which results in inflation in the economy. This constraints
the ability of the States to raise revenues but increases their expenditures, as a result
States’ lower their expenditure on social and economic infrastructure.
Centre's policies affect the functioning of the States in some other ways also. It reduces transfers to States, increases administered prices of goods and services particularly of inputs and capital goods such as petroleum products, coal, steel etc., withdraws operations in a concurrent activity making state responsible to spend on these activities also. In order to do so States' curtail their expenditure on social activities.

Just as Centre's policies affects States' working, the policies pursued by the latter may affect the provision of public services by the former. Centre has expanded its role in several areas like population control and family planning, forests, education, trade and commerce; originally placed in the State list but were brought into the concurrent list (through constitutional amendments) as the States were unable to perform the functions allocated to them efficiently. It also resulted in several Central sector and centrally sponsored schemes wherein the Centre influences States' allocation to the aided functions.

Another area where the interdependence between the Centre and the States has created problems is in the exercise of the States' borrowing power. When the States are not able to complete their expenditure requirements due to low productivity from capital projects, they have been using their borrowed funds to finance capital requirements along with current budgetary deficits as well. Increasing difficulty in debt servicing by the States over the year forced the Centre to periodically write off the loans, which in effect meant transferring the burden from the State taxpayers to the national taxpayers.

The allocation of taxes between Centre and States has also caused vertical tax overlapping. Various issues related to this includes sharing of certain taxes involves incentives for the collecting agency, taxing same base by different levels of government requires efficient means for coordinating the policies of these levels of government. As far as adverse incentive effects of tax sharing is involved, various Finance Commission over the years have increased the shares of income tax (85%) and excise duty (45%) going to the States. As a result the Centre's (collecting agency) incentive to raise more revenues from these taxes has been affected. The Constitution has provided for compulsory sharing of tax revenue to augment State's revenues. In this regard, States have preferred tax sharing to grants since they are fixed in percentage terms and are not affected by inflationary trends in the economy.
Grants, on the other hand, once recommended for five years remains the same and their value may diminish in case of high inflation.

**Horizontal Fiscal Overlapping**

Inter-State tax disharmony is yet another source of fiscal imbalance in the Indian federation. In India, the States collect about 30% of aggregate total revenues of the Centre and the States taken together and incur about 55% of total expenditures. Thus, the revenues raised by the State governments form quite a significant proportion of total revenues and therefore, the method of raising these revenues and their consequences would have important allocative and equity implications. States’ finance 43% of their expenditure from their own tax revenue sources and depends upon central transfers for the remaining 57%. The table 3.2 shows the share of States’ own revenue in their current expenditures (or fiscal independence) has declined from 45.1% in 1970-71 to 41.1% in 2003-04.

A major characteristic of the State tax systems in India is that sales tax contributes the maximum amount of revenue for the States out of the three major indirect taxes - sales tax, taxes on transport and State excise duty. (Table 3.3) Since revenue from sales tax plays a major role in the States’ fiscal operations, it is necessary to analyze the nature of disharmony in the levy of sales taxation. Such inter-State tax disharmony has resulted in changes in tax rates on one hand and giving concessions to attract new investment on the other.

A major consequence of sales tax competition is the differences in the tax rates. This situation has arisen when the States have tried to lower the tax rates on commodities with high elasticity of demand to increase tax revenue by encouraging cross borders purchases and raising the prices of commodities of inelastic demand and exported out of the States. Also the tax system followed by the States is not uniform - some States levy tax at the point of manufacture, some at the last stage of sale while some continue to levy a multi-point tax on certain commodities.

Inter-State competition is also present in case when sale tax concessions are given to attract investment in the particular State. This also causes variations in tax rates. In addition some States also levy surcharge on sales tax over and above the general sales tax. Also the administrative and enforcement machinery is not same in different States causing changes in tax rates.
Tax exportation to other States is yet another cause of inter-State disharmony. The reason for passing the tax burden includes the stage of levy of tax which may be origin or destination, due to narrow bases the cascaded taxes on inputs and capital goods add on to the inter-State sales tax (central sales tax CST levied at 4%) and the effective rate on inter-State export will be higher than 4%. Along with the CST levied by the States, octroi, is yet another tax on the entry of goods into a local area for consumption, use or sale, which acts as a fiscal impediment to inter-State trade.

Thus, the above analysis underlines the need to initiate various measures to minimize resource distortions and inequity arising from inter-State tax overlapping (disharmony) in the levy of sales taxes in the Indian federation. These various measures discussed in the next section include: - Destination based taxes to replace CST and taxes on inputs, minimizing tax disparities, rationalization of sales tax, harmonization of commodity taxes levied by different governmental units.

Harmonization of Tax Systems in India

As already discussed above, vertical and horizontal overlapping of taxes has resulted in a complicated and non-transparent tax system with differences in tax rates, causing inter-State tax competition and tax exportation, which then results in inequitable resource allocation. Tax overlapping has occurred due to Constitutional assignment of tax powers, economic interdependence in various functions of different governmental units. Also protection provided to domestic industries from foreign competition through licensing policy has cast its ill effects on the inter-governmental fiscal relations.

Disharmony in the levy of commodity taxes can be either vertical; between Centre and States or horizontal; among the States. Vertical and horizontal tax harmonization, therefore, is an important policy issue, particularly in a growing and liberalizing economy like India. Oates defines tax harmonization as "...a cooperative effort to secure a system of taxation that minimizes excess burden and yields a desirable pattern of incidence (Oates, 1972). Full harmonization then requires complete uniformity and for minimizing excess burden and controlling the pattern of incidence can be achieved only when the tax powers are centralized (Rao and Sen, 1996). So the definition by Oates proposes cooperative strategy to reduce excess burden but it implies centralization of taxes as a feasible option.
In a federal government, tax system should be harmonized keeping in mind the fiscal autonomy of State and sub-units and following the principles of a sound tax system. Several countries have successfully harmonized their system on the following lines: broadening the base, uniform and lower tax rates, reduce cascading and achieve simple and transparent tax system. It is feasible, therefore, to follow their experiences which requires that tax system should aim at raising maximum revenue with least cost which simplifies the system and reduces tax rate differences, cascading of taxes should be minimized by avoiding taxes on inputs and capital goods and this reduces resource distortions also.

In a fiscal federation, the States should be allowed to change the standards of public services provided by them in accordance with the preference of the residents and to provide these services, they can vary the tax rates as well. In case of a conflict, mutual negotiation and agreement between the Centre and the States and among the States should be achieved to harmonize commodity taxes in a federation. “In fact the emphasis in the Indian context needs to be placed not on the extent of tax harmonization, however defined, but on the process and institutions to facilitate it…”(Rao & Sen, 1996).

Although, it is advocated that States should be given fiscal autonomy but it should be ensured that they do not gain at the expense of other States. So the power to levy taxes should be destination based and those commodities, which have origin based taxes are to be transferred into destination based. The Central government on their part should ensure that all States are regulated by the same polices so that they are placed on a level playing field in competition with one another.

**Vertical Tax Harmonization**

Indian tax system follows the principle of ‘separation’ of tax powers between the Centre and the States in contrast to ‘concurrent’ powers assigned to the two levels of government in other federations. But separation of tax bases can be done only in the *de jure* sense since interdependence of the tax bases makes it impossible to separate the tax sources in a *de facto* sense causing an inefficient tax system (Rao & Sen, 1996). In the vertically overlapping commodity tax system, two factors are important to avoid inefficiency - first, commodity taxes levied at the manufacturing point, be it by the Centre or States is inefficient. Second, vertical coordination in the tax base has to be achieved by harmonizing the tax base through agreement and
providing authority to lower level of government, which ensures greater efficiency and accountability.

A possible arrangement for the Indian tax system to achieve vertical harmonization is to allow both the Centre and the States to levy the tax up to the retail stage, specifically by levying value added taxes. The tax bases should include consumption of not only goods but also services. Also taxation of inputs and capital goods should be refunded. The States can add on their own rates to the Central rate on the tax base determined by the Centre. This step harmonizes the tax base and tax rates can also be altered. However, such an arrangement faces a criticism that it reduces the powers of the states.

**Horizontal Tax Harmonization**

Various economists like Brenan and Buchanan (1980), Breton (1987) etc. have advocated inter-jurisdictional tax competition as a necessary step to check the growing monopoly power of the government to tax its citizens. It also results in a cost-efficient provision of public services for the consumers. This requires equal power to all the States rich or poor to mobilize resources. Also, origin based taxes are preferred against destination based which results in tax exportation to non-residents. In India tax competition has resulted in inter-State tax exportation by lowering the rates of commodities with high elasticity of demand and taxing inter-State sale of goods. The horizontal tax harmonization must concern itself with simplification and rationalization of the tax system, converting the existing origin-cum-destination type commodity taxes into pure destination type consumption taxes and getting rid of sales tax incentives for industrialization.

**Tax Harmonization: Towards A Value Added Tax**

Adoption of Value Added Tax (VAT) as prevalent in most West European countries is considered to be a most important solution to the problems of Indian commodity tax system. In fact, almost all-successful tax reforms are associated with the introduction of VAT and by now 140 countries had comprehensive VAT. In federal economies, to initiate tax reforms, the prevailing tax system should be made simple, transparent, board based and States should be given more fiscal powers.

The existing taxes on commodities and services can be converted into VAT when certain conditions are fulfilled. This requires that commodity taxes are extended
up to the retail level, broad based taxes are included, no taxes should be paid on inputs, capital goods and inter-State sale of goods and revenue generated by Centre and states should at least remain the same as before the tax reforms. This requires levy of concurrent VAT by both Centre and States. It has a number of advantages also. “Besides making the tax system efficient, this will safeguard the fiscal autonomy of the States, and when inter-State transactions are zero-rated, will get rid of tax exportation as well. (Rao& Sen, 1996)

However, such a system required a coordinated effort on the part of Centre and States. Through negotiations they can form a uniform tax base for both the levels of government, but a State could levy different tax rates for providing a higher level of public services. But this needs an amendment in the constitution allowing the Centre to levy tax at stages subsequent to manufacturing and to allow the States to levy the tax on consumption of services in addition to those on goods allowed presently.

The international experience regarding levy of VAT by sub-national levels of government is not quite heartening. In Brazil, sub-national VAT is levied but has not proved to be successful in eliminating inter-State tax exportation. However, the system of VAT followed by the European union, where inter country transactions are zero-rated, present a good example of successful levy of VAT at sub-Central levels.

However in India, the initial moves to implement VAT at the State level came in 1993 with the then finance minister Dr. Manmohan Singh, in his budget speech stated the need to reform the outdated States sales taxes by replacing them with the VAT. The States became interested with the idea only when a presentation was made by the National Institute of Public Finance and Policy, New Delhi in May 1994 before a conference of chief ministers for consideration. Small groups of chief ministers and finally an empowered committee of finance ministers were formed to examine the alternatives and select an acceptable design of VAT and to workout a schedule for its implementation. After a number of round of deliberations a deadline was set for the transition. But a final decision could not be reached. Then the date was set April 1,2003. But hindrances occurred again at the last moment as traders and several States protested angrily. The date was shifted forward to June 1, 2003. Sixteen States seem to be ready and in one State Haryana, VAT has been actually introduced. But the union finance minister Jaswant Singh declared that VAT couldn’t be implemented unless all States were prepared for it. Thus, another golden chance of reforming the commodity
tax system was lost. Finally, all except one State (Uttar Pradesh, who is also now ready to adopt VAT with the change in the Government recently) have adopted the system in the year 2005.

However, the actual reform process in case of excise system began with the introduction of MODVAT in 1986. MODVAT ushered in a new era in the system of excise taxation as it permitted instant credit to manufactures on the duty paid on inputs and intermediates and affected the cascading effect of excises on the final products.

Then in the 1996-97 Budget, 3 new rates were introduced i.e. 8%, 13%, 18% in place of 11 ad-valoren rates ranging from 0% to 50%. Then in the Budget 1999-2000 a new 3 rate structure was adopted i.e. a central rate of 16%, merit rate of 8% and demerit rate of 24%.

Finally in 2000-01 Budget, the three rates converged to single rate of 16% known as CenVAT. MODVAT scheme would now be known as CenVAT scheme.

Summary and Conclusion

The foregoing analysis on the theoretical aspects of fiscal federalism and indirect taxation brings out certain noteworthy things. An ideal tax system (especially indirect taxes), as desired by the economists and government at each level, requires uniformity in its structure based on equity and efficiency considerations. However, the partial equilibrium analysis demonstrates the non-desirability of uniform rates. When the tax is imposed, the price gets distorted and causes efficiency loss. Then to increase efficiency in the tax system, the equity consideration is affected in the process. Various models are considered in this regard. The Ramsey tax model with an efficiency objective in view, has examined whether the uniform tax is preferable or not. In case of lumpsum tax, welfare rises. But on the issue of commodity wise variation no solution could be derived. The answers may however, be obtained by relaxing and varying different assumptions.

But the equity objective doses not imply uniform taxation when the elasticity of demand differs between the goods in question. So only if the price elasticity were the same that uniform tax rates would be horizontally equitable.

Apart from uniformity in the tax system, another desirable dimension is of harmonization of broad taxes (like union excises, sales tax, service tax etc.) in a federal country. A common GST on a comprehensive base is the fiscal solution as suggested by different economists.