

## INTRODUCTION

### Scope and Objectives :

Fiscal Policy occupies a prominent place in the development of every country - be it developed or less developed - and more so in a country like ours which has accepted planning as the vehicle of development. Taxation, being the branch of fiscal policy, is supposed to perform certain important functions <sup>1/</sup> - (i) raising substantial revenues for public consumption and investment (ii) promoting saving and investment in the private sector (iii) containing inflation and ensuring stability and (iv) reducing economic inequalities among different sections of the society. During the past quarter century or so, there has been a phenomenal rise in the tax revenues. The tax revenues of Central and State government have risen from Rs 627 crores in 1950-51 to Rs 1,2076.77 crores in 1976-77.

As can be seen from Table I.1 the tax revenues are accounting for around 15-16 per cent of national income. Of this per cent a major portion (79.33 per cent) is coming from indirect taxes and very little (20.67 per cent) is coming

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<sup>1/</sup> Chelliah, Raja J. 'Basis of Taxation in the Context of Developing Indian Economy'. Papers read at the Indian Economic Conference, Baroda 1964. Popular Prakashan, Bombay, 1964, pp 18-21.

TABLE I.1  
Growth of Total Tax revenues  
(in crores of Rupees)

Year	Total tax revenue	Net National Income	Tax-ratio (i.e. ratio of taxation to income (percentage)
1	2	3	4
1950-51	626.70	9530	6.58
1955-56	767.60	9980	7.69
1960-61	1350.40	14210	9.50
1961-62	1542.98	15067	10.24
1962-63	1865.07	16059	11.61
1963-64	2374.35	18543	12.81
1964-65	2598.80	21785	11.93
1965-66	2922.19	22719	12.86
1966-67	3261.19	26030	12.53
1967-68	3455.24	30478	11.34
1968-69	3758.73	31338	12.00
1969-70	4200.01	34665	<del>12.54</del> 12.12
1970-71	4752.40	37895	12.54
1971-72	5575.18	40800	13.66
1972-73	6435.80	44990	14.30
1973-74	7388.60	55657	13.28
1974-75	9223.10	65969	13.98
1975-76	11181.13	68298	16.37
1976-77	12076.77	79391	15.21

Source: 1. For tax Revenue - Ministry of Finance Indian Economic Statistics - Part II Public Finance, New Delhi (yearly documents) 1969 to 1978 (mimeo)

2. For National Income - (i) Central Statistical organisation, National Accounts Statistics (1960-61 to 1974-75) New Delhi, 1976.

(ii) Central Statistical Organisation, National Accounts Statistics (1970-71 - 1975-76), New Delhi, 1978.

(iii) Central Statistical Organisation, National Accounts Statistics (1970-71 to 1976-77) New Delhi, 1979.

(iv) Ministry of Finance, Pocket Book of Economic Information, New Delhi, 1966.

TABLE I.2  
Growth of Direct and Indirect Tax Revenues

(In crores of Rupees)

Year	Direct tax Revenue	Indirect tax Revenue
1	2	3
1950-51	230.56 (36.79)	396.11 (63.21)
1955-56	259.07 (33.75)	508.49 (66.25)
1960-61	402.07 (29.77)	948.34 (70.23)
1961-62	449.19 (29.11)	1093.79 (70.89)
1962-63	560.06 (30.03)	1305.01 (69.97)
1963-64	692.63 (29.17)	1681.92 (70.83)
1964-65	742.32 (28.56)	1856.48 (71.44)
1965-66	734.74 (25.14)	2187.45 (74.86)
1966-67	766.83 (23.51)	2494.36 (76.49)
1967-68	779.63 (22.56)	2675.61 (77.44)
1968-69	839.60 (22.34)	2919.13 (77.66)
1969-70	963.04 (22.93)	3236.97 (77.07)
1970-71	1009.07 (21.23)	3743.34 (78.77)
1971-72	1170.95 (21.00)	4404.23 (79.00)
1972-73	1346.09 (20.92)	5089.68 (79.08)
1973-74	1552.12 (21.01)	5836.45 (78.99)
1974-75	1833.87 (19.88)	7389.19 (80.12)
1975-76	2492.55 (22.29)	8689.18 (77.71)
1976-77	2496.79 (20.67)	9579.98 (79.32)

Note: Figures in Parenthesis are percentages to total tax revenue.

Source: Ministry of Finance Indian Economic Statistics - Part II Public Finance New Delhi (yearly documents) 1969 to 1978 (Mimeo).

TABLE I.3

## Growth of Certain Major Taxes in Total Direct/Indirect Tax Revenue

		(In crores of Rupees)						
Item	1	Y E A R						1976-77
		1950-51	1955-56	1960-61	1964-65	1968-69	1975-76	
	2	3	4	5	6	7	7	
<u>Direct Taxes</u>								
(i) Corporation Tax	39.33 (17.06)	36.52 (14.09)	109.70 (27.28)	314.05 (42.30)	299.77 (35.70)	361.70 (34.57)	1113.00 (44.58)	
(ii) Taxes on income other than corporation tax	133.89 (58.07)	132.02 (50.95)	168.73 (41.96)	266.55 (35.90)	378.47 (45.07)	1214.36 (48.71)	965.00 (38.64)	
<u>Indirect taxes</u>								
(i) Union excise	67.54 (17.05)	145.25 (28.56)	416.35 (43.90)	801.51 (43.17)	1320.67 (45.24)	3844.78 (44.25)	4176.60 (43.60)	
(ii) Customs	157.16 (39.68)	166.70 (32.78)	170.03 (17.92)	397.50 (21.41)	446.50 (14.94)	1419.40 (16.34)	1490.45 (15.56)	
(iii) Sales tax	58.20 (14.69)	81.59 (16.05)	163.92 (17.28)	330.02 (17.78)	598.31 (20.49)	1982.47 (22.82)	2298.57 (23.99)	

Note: Figures in Parenthesis are percentages to total direct/indirect tax revenue.

Source: Ministry of Finance, Indian Economic Statistics- Part II, Public Finance, New Delhi  
(yearly documents) 1969 to 1978 (Mimeo)

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from direct taxes. The role of direct and indirect taxation has been changing. Table I.2 shows direct as well as indirect tax revenue as a percentage of total tax revenues. It may be seen that though there has been an increase in direct as well as indirect tax revenues (in the absolute sense) a closer look at table I.2 would tell us that the role of direct taxation has been falling while that of indirect taxation has been increasing.

Apart from this, the structure of direct and indirect taxation has undergone change, This change is very clear from 1961 onwards. In the case of direct taxes, corporation tax has emerged as the main contribution<sup>or</sup>. It accounts for more than 44 percentage of direct tax revenues (of Central and State governments). In the case of indirect taxes, union excise duties, sales tax, import duties account for lion's share (see Table I.3).

Still further, the tax revenues have been elastic and buoyant and have been able to fulfill the important function of fiscal policy - viz revenue mobilisation. The income elasticity of most of the indirect taxes has been more than one, and of certain direct taxes also has been more than one.

Now, a few pertinent questions arise:

- (i) What has been the result of taxation <sup>with respect</sup> ~~on price~~ level to promotion of investment and saving in the private sector ?

- (ii) What has been the effect of taxation on price level, and employment ?
- and (iii) What has been the effect on the reduction of income inequalities ?

It is with the last question our study is associated. In fact, this question has been often debated both inside and outside the Parliament. Not a single budget of the union government is passed without making any reference to it. Additional taxes have been justified on the score that they do not add much to the burden. For example:

While presenting the union budget for 1964-65, the Finance Minister observed that "direct taxes provide the means through fisc for change in the nature and direction of society towards the goal of removing inequalities of income distribution" <sup>2/</sup> and "indirect taxes, both excise and customs, the cumulative effect of which will hardly add to the burden that the economy is now bearing" <sup>3/</sup>. Similarly, while presenting the budget for 1968-69, the Finance Minister declared that "in order to maintain progressiveness of the income tax, I propose to step up the basic rates of income tax. .... I have maintained the utmost restraint in proposing changes in excise and customs duties..... The over-all budgetary effect will only be marginal <sup>4/</sup>. Still on

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<sup>2/</sup> Ministry of Finance. Budget for 1964-65\* Government of India, New Delhi 1964-65, pp 170-171.

<sup>3/</sup> Ibid, p 168

<sup>4/</sup> Ministry of Finance. Budget for 1968-69 (Part II) Government of India, New Delhi 1968-69, p 7.

another occasion, the Finance Minister while presenting the budget for 1975-76, pointed out that "we do look upon the budget as ~~an~~ important tool for reaching our cherished socio-economic goals ..... I have done my best to minimise the burden that would fall on the more vulnerable sections of the community" 5/. More recently, the Finance Minister, while presenting the budget for 1979-80 told that

"In a country in which the bulk of the population lives below the poverty line, disparities in income have to be minimised..... Tax policy should seek to reduce such disparities" 6/

Our study is not concerned with question (i) and (ii) cited above, as they constitute separate studies by themselves. Basically, the study measures the tax burden, by various income classes and finds out:

- (i) Whether the existing tax-system in 1975-76 distributes the tax burden in an equitable manner among different income classes ?
- Which of the direct or indirect taxes add to substantial burden to the households ? Which of the taxes are regressive/proportional/or progressive ? and for which income classes ?

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5/ Ministry of Finance 'Budget for 1975-76' Government of India, New Delhi 1975-76, p 10.

6/ Government of India. Budget 1979-80 ~~Speech~~<sup>Speech</sup> of Deputy Prime Ministers and Minister of Finance (Part B). February 1979 (S.71 para) p 16.

- (ii) Whether there are significant differences between the tax burden borne by rural and urban households for the tax-system, as a whole and also for certain important direct and indirect taxes ?
- (iii) Whether the tax-burden has increased or decreased, compared to that of the earlier years 1964-65 and 1968-69 for the tax-system as a whole and also for certain important direct and indirect taxes ?
- and (iv) Whether income inequalities have been reduced due to taxation among various income classes, during the period 1964-65, 1968-69 and 1975-76 ?

Earlier Works :

The first systematic attempt to measure tax-incidence was made by the Taxation Enquiry Commission, 1953-54 <sup>7/</sup>. It measured the tax-burden by using the household consumer expenditure data, furnished by the National Sample Survey (N.S.S.) in its 4th round. The burden was expressed by certain household expenditure classes. Later, two more attempts were made by the Ministry of Finance <sup>8/</sup> to measure the incidence of indirect taxes for 1958-59 and 1963-64 on the basis of the same methodology.

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<sup>7/</sup> Ministry of Finance. Report of the Taxation Enquiry Commission (1953-54) Government of India, New Delhi 1955.

<sup>8/</sup> (i) Ministry of Finance Incidence of Indirect Taxation (1958-59) Government of India, New Delhi, 1961.

(ii) Ministry of Finance 'Incidence of Indirect Taxation (1963-64)' Government of India, New Delhi, 1969.



of taxation includes not only the burden of indirect taxes but also of direct taxes. And such a study of tax burden (direct plus indirect taxes) is of Paramount importance to judge as to 'who bear the existing taxes' ?

Now, it may not be out place if we refer to certain studies on tax-incidence, carried out by the National Council of Applied Economic Research (NCAER) for some individual States like Gujarat, Mysore, Andhra Pradesh etc.<sup>11/</sup> These studies have been conducted on the basis of household budget surveys. It may be, further, stated that certain individual scholars have attempted to measure tax-incidence with respect to either certain individual taxes or certain sectors of the economy. Many of them have shown interest on the burden of agricultural taxation. To quote some of them; 'Taxation of Agricultural land in Andhra Pradesh' by Ch. Hanumantha Rao <sup>12/</sup>

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<sup>11/</sup> i) National Council of Applied Economic Research (NCAER) Incidence of Taxation in Gujarat New Delhi 1970.

ii) National Council of Applied Economic Research NCAER Incidence of Taxation in Mysore New Delhi 1972.

iii) NCAER Review of Sales tax in Andhra Pradesh New Delhi 1963 and 1971.

<sup>12/</sup> Hanumantha Rao, CH. Taxation of Agricultural Land in Andhra Pradesh Asia Publishing House, Bombay 1964.

Amaresh Bagchi <sup>20/</sup> etc. These studies as said earlier, confine to certain individual taxes only and are useful to us in understanding the problem of tax-incidence.

Further, two more studies are worth noting. One is the study of H.F. Lydall and M. Ahmed <sup>21/</sup>; and the other is that of Banamali Dey <sup>22/</sup>. Lydall and Ahmed's study, strictly speaking is not on incidence of taxation (for 1965-66). It is a study on the projections of tax yield for 1965-66, on the basis of likely consumer demand in 1965-66. The projections for 1965-66 have been estimated in 1961. It may be observed that they have not considered the 'inter-industry use' of various goods, on which taxes have been imposed. Also, it may be seen that their estimates are not based on actual tax collections. Their assumption that the rates of direct and indirect taxes would not change over a decade (i.e. 1955-56 to 1965-66) may not be realistic. Therefore, their work is insufficient to arrive at the burden of taxation for 1965-66.

Banamali Dey <sup>23/</sup> examined the per capita burden of indirect taxation for ten fractile groups on the basis of NSS

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<sup>20/</sup> Bagchi, Amaresh 'Redistributive Role of Taxation in India: An Appraisal' in Srinivasan, T.N. and Bardhan, P K (eds) Poverty and Income Distribution in India Statistical Publishing Society, Calcutta 1974, pp 441-468

<sup>21/</sup> Lydall, H.F. and Ahmed, Mahfooz 'An Exercise in Forecasting Consumer Demand and Taxation Yields in India in 1965-66' Indian Economic Review August, 1961, pp 313-323.

<sup>22/</sup> Dey, Banamali 'Impact of Indirect Taxes on Distribution of Consumer Expenditure' Economic and Political Weekly, September 7, 1974, pp 1543-1552

<sup>23/</sup> Ibid.

consumer expenditure, separately for rural and urban sectors of West Bengal for 1964-65. The estimates of per capita consumer expenditure on 14 groups of food items and 17 groups of non-food items. Dey made an attempt to find out as to how indirect taxes on capital goods could be shifted. His analysis is confined to West Bengal only and therefore, does not provide information on tax burden at All-India level.

All the earlier works are, therefore, not adequate to provide a satisfactory measure of total tax burden (direct and indirect taxes) by various income classes, with an All-India ~~rural~~ coverage (including a break-up of rural and urban tax burden by income class) so as to find out answers to the various questions raised in the previous section. And the present study is a modest attempt in this direction.

#### Conceptual and Statistical Problems

##### Conceptual Problems:

There are many conceptual and statistical problems associated with the meaning and measurement of tax-burden. At the outset itself, it is necessary to state that there are two terms, namely 'Incidence of tax' and 'burden of tax' which are commonly used in taxation. Some writers are of the opinion that both terms mean the same, whereas some others are of the opinion that there is a distinction between the two. According to Joseph A. Pechman and Benjamin A. Okner<sup>24/</sup>, the two terms mean the same and could be used synonymously. But according to

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<sup>24/</sup> Pechman, Joseph A and Okner Benjamin A. Who Bears the Tax Burden ? Studies in Government Finance, The Brookings Institution, Washington DC 1975, p 3.

J.F. Due <sup>25/</sup>, the term burden of tax refers to reduction in real income while the term 'Incidence of tax' refers to distributional aspect of tax burden.

There are many concepts of tax-incidence. According to Dalton <sup>26/</sup>, incidence of a tax means the direct money burden, borne by those who pay the tax. He distinguishes also between money burden and real burden of a tax. Real burden of a tax is associated with loss of economic welfare in terms of sacrifice undergone by the tax payer.

According to Mrs Ursula K. Hicks <sup>27/</sup>, there are two types of incidence - (i) formal Incidence and (ii) Effective Incidence. Formal Incidence deals with the money burden of taxes. Tax collections are allocated among different income groups. It explains how income has been redistributed after tax payments are made. In her own words 'the calculation of formal incidence is of great social interest in connection with questions of the distribution - and redistribution - of income' <sup>28/</sup>. On the other hand, effective incidence deals with the tax-payers' reaction to a change of tax and its consequences.

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<sup>25/</sup> Due, John F. 'Toward a General Theory of Sales Tax Incidence' Quarterly Journal of Economics May, 1953, p 253.

<sup>26/</sup> Dalton H. Principles of Public Finance Routledge and Kegan Paul Ltd, London 1949 pp 51-52

<sup>27/</sup> Hicks, Ursula K. Public Finance Cambridge University Press, 1971 Chapter IX pp 139-140

<sup>28/</sup> Ibid p 140

Therefore, effective incidence, compares two sets of economic situations, namely one with tax and the other without tax.

According to R.A. Musgrave <sup>29/</sup> there are three concepts of incidence - specific incidence, differential incidence and budget incidence.

Specific/Absolute Incidence:

In his earlier work <sup>30/</sup>, Musgrave calls specific incidence as Absolute Incidence also. It examines the distributional effects of income, due to imposition of tax. 'Specific Incidence' may be examined under two sets of situation: (i) classical setting with full employment and (ii) <sup>Compensatory</sup> ~~compulsory~~ system i.e. a system with less than full employment of the Keynesian type. In both the situations, it is not possible to trace out the distributional effects of income, that are exclusively attributable to tax. Under ~~ae~~ a classical setting, the distributional effects of tax are got mixed up with the effects of either inflation or deflation. Under a compensatory system also, the distributional effects of tax are influenced by the Keynesian output effects.

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<sup>29/</sup> Musgrave R.A. The Theory of Public Finance (International Student Edition) MCGRAW Hill, 1959 chapter 10, pp 205-231.

Also see Musgrave R.A. and Musgrave, Peggy B. 'Public Finance in Theory and Practice' MCGRAW Hill (International Student Edition), 1973, pp 357-358.

<sup>30/</sup> Musgrave R.A. 'On Incidence' <sup>Political</sup> Journal of Public Economy Vol 61, No 4, August 1953, p 306.

### Differential Incidence:

Differential Incidence<sup>31/</sup> explains the difference in the distributional results of two tax policies that provide for equal yield in real terms, while holding public expenditure constant in real terms. This concept also has been examined as to how it works under (i) classical setting with full employment and, (ii) ~~compensatory~~<sup>Compensatory</sup> system. The concept of differential incidence, helps us to find out the distributional effects of tax, free from those associated with either inflation or deflation. So, it is generally said that differential incidence is superior to that of specific incidence in finding out the distributional effects of tax. But what happens when differential incidence is considered under a compensatory system? Here, the distributional effects of tax are influenced by the Keynesian output effects. Therefore, even the concept of differential incidence, possesses the same weakness, as that of the specific incidence in a compensatory system. However, Musgrave seems to favour the concept of differential incidence under a classical setting (with full employment) rather than the concept of specific incidence.

### Budget Incidence:

The concept of Budget Incidence looks at the problem of incidence taking into account the combined effects of tax and public expenditure. The distribution of income among the

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<sup>31/</sup> The concept of differential incidence was used first by Knut Wicksell. See Musgrave R.A. The Theory of Public Finance MC Graw Hill, Tokyo, 1959, p 213 (foot note).

households is not only affected by taxation but also by public expenditure. When taxes are imposed, the incomes of the households are reduced. On the other hand, when transfer payments are made, the incomes of the households are increased. The combined effects of changes in taxation and changes in public expenditure are attributable to 'Budget incidence'.

"Static" Incidence and "Dynamic" Incidence

Douglas Dosser <sup>32/</sup> explains tax-incidence in two forms. One is the 'static' incidence and the other is the 'dynamic' incidence. Under 'static' incidence, effects of tax are considered at a point of time. It refers to the equilibrium between 'sources' and 'uses' side of income. Dosser explains it with the help of the following formula:

$$\Delta R = f(w_i, W_i, P_{ij}, q_{ij}) \quad \begin{matrix} i = 1, 2 \\ j = 1, 2 \dots n \end{matrix}$$

Where  $\Delta R$  = Change in individual real income

$w_i$  = Change in price of factor with tax and without tax.

$W_i$  = Change in hours worked or capital offered.

$P_{ij}$  = Change in price of jth good with tax and without tax.

$q_{ij}$  = Change in quantity of ith good with tax and without tax.

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<sup>32/</sup> Dosser, Douglas 'Tax Incidence and Growth' The Economic Journal, September 1961, pp 574-591.

Under 'dynamic' incidence, the effects of tax are considered over a period of time. Dynamic incidence examines how the growth rates of income of individuals are affected due to taxation. Dosser explains the 'dynamic' incidence with the same variables, as used in 'static' incidence except that of using the changed growth rates over time. The formula explained for 'Static' incidence, if differentiated with respect to time 't', gives the following formula for 'dynamic' incidence.

$$\frac{d \Delta R}{dt} = g \left( \frac{dw_i}{dt}, \frac{dW_i}{dt}, \frac{dP_{ij}}{dt}, \frac{dq_{ij}}{dt} \right)$$

A.R. Prest<sup>33/</sup> gives a different interpretation of tax incidence. According to him, the sum received by an income group after deduction of taxes, directly assessed on income should be taken for two years. The difference in income so arrived (for that income group) should be deflated by a retail price index appropriate to that group and that indicates the incidence of tax. In his words "If one classifies income recipients by size of income groups, then one can estimate the sum received in the two years by each group after deduction of taxes directly assessed on income. Subsequently, one can deflate this change in net income received by each group by a retail price index appropriate to that group <sup>34/</sup>.

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<sup>33/</sup> Prest A.R. 'Statistical calculations of Tax Burdens' Economica August 1955, pp 239-240.

See also Conrad Alfred H.

'On the calculation of Tax Burden' Economica, November 1955, pp 242-348.

<sup>34/</sup> Ibid.



Of all the different kinds of incidence explained above, we have chosen to measure the burden of taxation by formal incidence. The real burden of taxation explained by Dalton <sup>35/</sup> or the effective incidence, explained by Mrs Ursula K. Hicks<sup>36/</sup> is associated with the concept of economic welfare, which is highly subjective and which requires use of sophisticated tools, for which adequate data in India are not readily available. Similarly, we are not interested to measure the burden in accordance with differential incidence hypothesis, as it does not measure the burden of existing taxes. Moreover, measuring tax-burden by differential incidence also needs adequate data in order to replace the existing tax system by another of equal yield to government and such data are not available in India. The kind of incidence hypothesis developed by Dosser<sup>37/</sup> is better suited to assess the effects of tax on the growth rates of incomes of individuals rather than to measure the money burden of taxation. On the same analogy, even Prest's measure of incidence is related to a two-year period and is not very helpful to us. We are interested to find out the money burden of the existing taxes for specific years.

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<sup>35/</sup> Dalton, op cit

<sup>36/</sup> Hicks, Ursula K. op cit

<sup>37/</sup> Dosser, op cit

In other words, we are interested to know as to how the tax-burden of existing taxes is distributed among different income classes.

As said earlier, under formal incidence, actual tax payments have been distributed among various income classes. The burden is measured in terms of what is known as "Effective tax rate" which means the amount of tax, expressed as a percentage of personal income. In this context, it may be mentioned that the effective tax rate, so estimated often differs from the one, that is calculated on the basis of the rate structure of a tax. If it is calculated on the basis of the rate structure of a tax, it indicates only the tax-liability of a particular income group, net of all allowances, deductions etc. admissible under the tax rules in force. But in measuring the burden of tax, it would be more appropriate to estimate the effective tax rate, by taking into account the actual payments of tax, rather than making an estimation, on the basis of rate structure only. Now, a tax is considered progressive, if the effective tax rates increase when incomes increase; regressive if the effective tax rates decrease when incomes increase, and proportional if the effective tax rates remain constant for all levels of income. It may be recalled that the above statement should not be confused with the observation on the 'degree' of progression and progressiveness. 'Degree' of

Progression, as rightly observed by Musgrave, is measured as percentage change of tax divided by percentage change of income <sup>38/</sup>.

Statistical Problems:

In regard to statistical problems, associated with the measurement of tax burden by income class, the most important is the availability of data on size distribution of income. In every country, this has posed a difficult problem. Moreover, the meaning and interpretation of 'income' for the purpose of measuring tax-burden involve certain amount of ambiguity. For example: whether imputed values of owner occupied houses have to be included or not? Whether the value of home grown consumption has to be taken into account or not? In some of the works carried out abroad <sup>39/</sup> the official statistics on national income have been modified by supplementary additional data on income distribution by size. As far as our study is concerned, we have measured the tax burden, taking into account the concept of 'personal income'. (i.e. income received by the households from all sources).

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<sup>38/</sup> Musgrave R.A. et al 'Distribution of Tax Payments by Income groups: A case study for 1948' National Tax Journal, Vol IV No.1, March 1951. p 28

<sup>39/</sup> See for example: Goffman, Irving J The Burden of Canadian Taxation Canadian Tax foundation publications, Toronto, 1962, Chapter III.

Another important data that are necessary is consumers' household expenditure on different commodities and services. This information is generally obtained from the various consumer expenditure surveys conducted by certain official organisations. In India, the National Sample Survey (NSS) conducts surveys on consumer expenditure for different periods of time. But the number of items that are included in household consumer expenditure surveys is small, and consequently, these surveys do not provide information on the consumer expenditure with respect to a large number of items that are taxed.

Now, a word about the tax-paying unit is also necessary. In most of the empirical studies, households have been taken as the tax paying units as well as the spending units. But if households are taken as the tax-paying units, there are certain difficulties associated with the structure and size of the households, (like age and sex composition etc). In a micro sense, it is not possible to find the effect of taxation on income distribution of those households belonging to the same income but different in their size and structure. To overcome this difficulty, as Roskamp <sup>40/</sup>rightly observed,

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<sup>40/</sup> Roskamp, Karl. W 'The Budget and Interpersonal' Distribution: Comments on the papers of professors Bela CSIKOS-NAGY and Alan R. Prest, Public Finance, Vol XXXIII/No.1-2/1968, pp 100-101.

households have been considered as the tax-paying units in a macro sense (i.e. aggregates).

As far as our study is concerned, the meaning and interpretation of 'household' is the same as that furnished by the National Sample Surveys.

The main data that have been used in this work are Income tax data furnished by the Statistical Abstracts,

All India Income Tax Statistics (AIITS) A Technical note on the approach to the Fifth Plan 1974-79, National Sample Surveys, Reserve Bank of India Bulletins, Explanatory memoranda to union Budgets, National Accounts Statistics furnished by the Central Statistical organisation (C.S.O.). Indian Economic Statistics issued by the Ministry of Finance; Surveys conducted by the National Council of Applied Economic Research (NCAER) etc.

We are aware of the limitations of our study; <sup>For example,</sup> there has been a lot of criticism against the consumer expenditure data, furnished by the National Sample Surveys (N.S.S.). The N.S.S. data are based on sample surveys which may be often subjected to sampling errors and response biases. It has been observed that the households, when asked about their consumption, may have a tendency to over estimated some items of consumption or under estimate some others. It has been observed that the consumption expenditure of the top income

classes is under estimated <sup>41/</sup>.

Similarly, there is a lot of criticism against the reliability of Income tax statistics. It has been often said that the tax paying group who pay income tax in India constitute a very small proportion of the total population. The tax revenue shown in the All India Income tax statistics is net of all concessions, deductions etc. for which detailed information is not available. However, in the absence of any other source of information to furnish data on the bracket-wise collections of certain direct taxes like the corporation tax, income tax etc. we have no other option, except to depend upon the All India income tax statistics furnished by the Directorate of Inspection, New Delhi. However, while using the income tax data as well as the NSS consumer expenditure data, enough care has been taken, wherever necessary, by postulating certain assumptions.

In spite of these limitations, we have attempted to measure the tax burden by income class. Our view may be clinched by citing what Professor Musgrave has said "Although available evidence is discouragingly scarce, the economist cannot plead complete absence of information. There is some empirical evidence to work with and some conclusions may be reached deductively" <sup>42/</sup>

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<sup>41/</sup> Bardhan, P.K. 'Pattern of Income Distribution in India' in Srinivasan T.N. and Bardhan, P.K. (eds) Poverty and Income Distribution in India. Statistical Publishing Society, Calcutta 1974, pp 115-119. See also Mukherjee M and Chatterjee G.S. 'Consumption Expenditure' in Srinivasan T.N. Bardhan, P.K. (eds) Poverty and Income Distribution in India Statistical Publishing Society, Calcutta, 1974, pp 139-147.

<sup>42/</sup> Musgrave R.A. et al, op cit, p 3.

### Chapter Scheme

Chapter two explains the derivation of size distribution of personal income, which is highly essential for measuring tax burden by income class.

Chapter three and four explain in detail the methodology adopted by us for allocating tax burden of indirect and direct taxes among various income classes.

Chapter five is concerned with the results of our study. It explains the progressivity, proportionality and regressivity of the tax burden for the households in various income brackets in rural, urban and All India (rural plus urban combined) for the year 1975-76.

Chapter six studies the changes in tax-burden over the years 1964-65, 1968-69 and 1975-76.

Chapter seven is a study on the effects of taxation on income distribution for 1964-65, 1968-69 and 1975-76. It delineates the trends in fiscal policy over all these years. The last chapter contains the summary of conclusions of the study. It provides broad suggestions for policy making and also throws light on certain areas for future research.