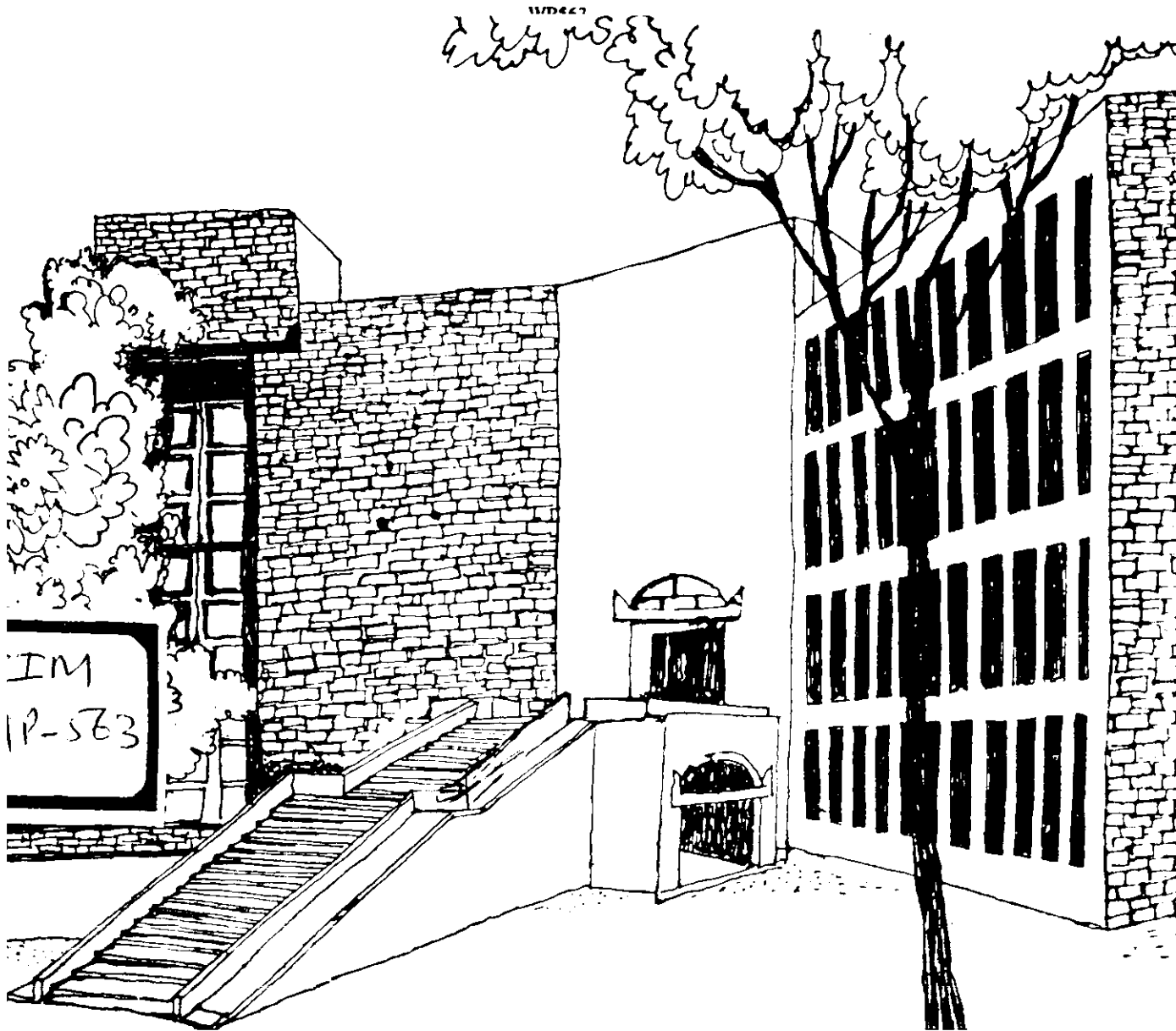# Working Paper

INDIVIDUAL TAXATION :
A PROPOSAL FOR REFORM

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INDIVIDUAL TAXATION : A PROPOSAL FOR REFORM

Inflation affects real income tax liabilities in
two ways. First, inflation erodes the value of fixed
rupee amounts (for example, ceiling on deductions, nil
tax income slab, etc.) and second, in a progressive tax
system, inflation moves a tax payer in a high tax bracket
(bracket creep). In the absence of statutory tax reduction,
this would result in a tax liability proportionately
greater than inflation-induced increase in gross income,
and thus, decrease the after tax real disposable income
available to the tax payer.

To illustrate, how inflation increases tax burden
and erodes disposable income, consider an individual with
a gross salary of Rs.30,000 in the financial year
1982-83(assessment year 19 3-84)*. With a price increase
of eight per cent in the financial year 1983-84 and a
further 10.3 per cent increase in the financial year
1984-85, and assuming that this gross salary increases
at a rate that matches inflation rate, his gross salary
in financial year 1984-85 (AY 1985-86) would be Rs.35,700.

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*Assessment year is a year which follows the financial
year,for example, for 1982-83 financial year, the
assessment year would be ~~1985-86.~~ 1983-84.

In AY. 1983-84, on his gross slary of Rs.30,000, he would have paid a tax (including surcharge) of Rs.3,300 after taking into account available standard deduction under Section 16. In AY 1985-86 on his gross salary of Rs.35,700 he would have to pay Rs.4,117 as taxes (including surcharge) after taking into account available standard deduction.

Thus, the gross salary has increased by only 19 per cent while tax liability has increased by 24.7 per cent. This is despite the fact that during this period there has been five per centage point tax rate reduction for all the income slabs and the maximum amount limit on allowable standard deduction was raised to Rs.6,000 from an earlier limit of Rs.5,000 in AY 1983-84.

Further, it is true that inflation affects all the tax payers, but its impact is not evenly distributed over the entire income spectrum. Tax payers in the lower and middle income slabs are more adversely affected. This is because the rate of progression in the lower and middle income-slabs is much higher (width of bracket being smaller). This and fixed amount deductions affect them considerably more than the upper income groups.

At higher income groups, tax rates are less progressive, and thus the incidence of inflation tax increases are minimal. Normally, middle income groups are wage earners who receive periodic cost of living adjustments (e.g., dearness allowance etc.). Such people would face larger drop in their purchasing power even though their gross income may be rising as fast as the inflation.

In the past, Parliament has periodically enacted tax legislation to counteract the inflation induced increase in real tax burden. However, these periodic tax cuts have produced only a rough offset to the inflation-induced increases in the income tax burden. The speed with which the effect of inflation can supercede the reform induced reduction in tax rate can be visualised by taking AY 1986-87 budget proposals and assuming that there would not be any statutory change in tax rates and income slabs for coming three years. There is a strong possibility of this happening, considering that AY 1986-87 proposals contain major reductions in tax liabilities and the Central Government intend it to be a long term taxations policy for individuals.

Given that in the past four years, average inflation rate has been eight per cent compounded annually, we can assume that future inflation would be around same percentage points, if not higher. However, to provide flexibility in interpretation of our results, we have assumed three rates of inflation 8, 10 and 12 per cent and simulated the results.

The results are tabulated in Table 1a, 1b, and 1c. Taking AY 1986-87 budget proposals with the three possible inflation rates 8, 10 and 12, table 1 a presents the tax liabilities and average tax rates in AY 1987-88 if income increase keep pace with inflation. Similarly, results for AY 1988-89 and AY 1989-90 are presented in table 1 b. and 1(c) respectively. Results indicate that an individual with a cufrent salary level of Rs.20,000 who does not pay any income tax at present, would have to pay taxes of Rs.655 in AY 1989-90 if inflation rate is 10 per cent. If inflation rate turns out to be 12 per cent. per annum, the tax liability would increase to Rs.1024. One can see the effect of two percentage point increase in inflation on tax liability. Average tax rates for all income groups increases, but increases are much larger in lower income groups

compared to the higher one. This is due to the fact that
progressivity of tax rates at lower level is much higher
compared to the higher level, and the bracket creep effect
is much larger.

To illustrate the effect of bracket creep, let us take
an inflation rate of 10 per cent and gross income of Rs.40,000
in AY 1986-87. The current income tax (AY 1986-87) on
Rs.40,000 (after taking standard deductions) is Rs.4,450.
In three years time (i.e., in AY 1989-90) the gross income
that matches a 10 per cent inflations rate, would rise
to Rs.53,240 and on this, with current tax rates, the tax
liability would be Rs.8,422. This is an increase of Rs.3,972
(Rs.8,422-4,450) or 89 per cent. Without bracket creep the
tax should have been Rs.5,923 (Rs.4,450 x 1.10^3). This
means that Rs.1,473 (Rs.5,923-Rs.4,450) may be attributed
to salary increase due to inflation and Rs.2,499 (Rs.8,422-
Rs.5,923) due to bracket creep. Therefore, the tax increase
attributable to bracket creep is 63 per cent
Rs.2,499 $\div$ (8422-4450) of the total tax increase.
Similar computations were made for all the salary levels
in Table 1 and the results appear in Table 2.

The data in Table 2 leaves no doubt as to the fact
that the relative tax burden in low-income tax payers is
disproportionately higher than for high-income tax payers
because of the combination of inflation, static tax brackets,
and static tax rates. However, no income level is immune to
inflation, i.e., the increase in tax liability for any income
level exceeds the rate of inflation.

The next question concerns the alterations required
in the current method of tax reforms in order to evolve
an equitable tax system. In an inflationary period,
ad hoc changes in fiscal policies cause inequities in the
tax system, hurting some tax payers while helping others.
Given below are some suggestions to develop an equitable
taxation policy.

a.   <u>Indexation</u>

Indexation is one way to correct the situation.
Indexing makes income tax "inflation neutral" by tying
the tax to cost of living changes. All that is needed in
the case of individuals is to index tax brackets and
fixed rupee amounts such as nil tax income slab, monetary
ceiling on standard deduction, etc. The tax rate appli-
cable in each tax bracket does not change. Application

of the concept is simple. The following example demonstrates how the tax schedule and nil tax income slab for an individual will be computed.

Assessment year 1986-87 Tax Schedule

If taxable income is	Then the tax is:
below 18,000	nil
18000-25000	25 per cent
25000-50000	Rs.1750, plus 30 per cent of the excess over Rs.25,000
50000-100,000	Rs.9250, plus 40 per cent of the excess over Rs.50,000
100,000-and above	Rs.29,250, plus 50 per cent of the excess over Rs.100,000.

Multiplying the income amounts of the AY 1986-87 tax schedule by the cost of living adjustment computed for AY 1987-88, let us assume it is 1.12, the tax schedule for AY 1987-88 would be:

1987-88 Tax Schedule

If taxable income is :	Then the tax is:
below 20160*	nil
20160*-28000	25 per cent
28,000-56000	Rs.1960, plus 30 per cent of the excess over Rs.28,000.
56,000-112,000	10,360 plus 40 per cent of the of the excess over Rs.56,000.
above 112,000	32,760 plus 50 per cent of the excess over Rs.112,000.

The standard deduction for AY 1987-88 would also be adjusted by inflation factor to Rs.6,720** (AY 1986-87 standard deduction of Rs.6000 multiplied by inflation factor 1.12).***

The tax rates in each bracket applicable to AY 1986-87 remains unchanged, but the amount of tax liability in each bracket is changed to reflect the changes in taxable levels. This results in a constant _real_ income tax liabilities during inflation.

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*This can be approximated to Rs.20,000 to round off.

**Can be approximated to Rs.6,700 to round off.

***Similar adjustments can be advocated to fixed rupee ceiling amounts under sec.80 C and 80 L which deliberately I have kpt out of the paper. These two sections relates more to individual's investment-savings decisions which I plan to deal in a separate paper.

This system has been in operation in Canada since 1974 but more recently, for budgetary reasons, the cost of living adjustments have been restricted to six per cent in 1983 and to five per cent in 1984, though inflation has been in double digits. The US Economic Recovery Tax Act of 1981 provides for implementation in 1985, a system of indexation of individual tax brackets. However, lately there has been a lively debate in USA on a proposal advocating flat rate tax on all income levels.

Flat Rate Tax

Flat rate tax system proposes a fixed tax rate which is applied to all income levels. Hongkong has such a system. Individuals in Hongkong pays 15 per cent (more recently 17 per cent) taxes on their gross income (after adjusting for basic deduction).

Without going into merits of the system, from our point of view, it can be said that if tax system is proportional for all income levels, the inflation would not affect the real tax liabilities. It is the progressive nature of the tax which causes inflation-induced increase in real tax liabilities. However, in my opinion, in a developing and inequitable economy like ours it cannot be considered an acceptable public choice system.

Periodic Inflation Adjusted Tax System

If government wishes to have a stable fiscal
policy alongwith relatively simple tax system, it may be
well worth its while to alter the tax brackets, nil
tax income slab, and deductions limits periodically, say
every three years, taking into account the experienced
inflation during the period. This provides an inflation
adjustment every three years wit a lag effect, which
certainly would be better than making ad hoc adjustment
or no adjustments at all. Past experience shows that
even a major tax reforms done on ad hoc basis may cause
inequities among various income groups*

We all know that inflation is here to stay and
progressive tax system is desirable social choice. I
would therefore reiterate that rather than being
subjected to ad hoc discretionary changes in our tax system,
we must switch over to a planned indexed system to provide
a much needed rationality and equity to the system. Ad hoc
changes may hurt some while correspondingly help others.
To reduce complexity, such indexation can be done every
three or five years, provided that inflation remains moderate.

*Refer to my other study titled "Inflation and Tax Reforms:
A Study in Individual Taxation" which reveals that even
the major budget reforms made in 1985-86 budget proposals
retains inequitities, hurting the 25,000-50,000 income-groups,
while substantially benefitting large income-groups.

TABLE 1A

PROJECTIONS OF INCOME, TAXES AND AVERAGE TAX RATES
WHEN INCOME INCREASE MATCHES INFLATION
FOR ASSESSMENT YEAR 1987-88

A.Y. 1986-87			When the annual inflation rate is								
			8 per cent			10 per cent			12 per cent		
ross ncome	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Rate
20000	0	0.0	21600	0	0.0	22000	0	0.0	22400	0	0.0
25000	250	1.0	27000	750	2.8	27500	875	3.2	28000	1000	3.6
30000	1500	5.0	32400	2170	6.7	33000	2350	7.1	33600	2530	7.5
40000	4450	11.1	43200	5410	12.5	44000	5650	12.8	44800	5890	13.1
50000	7450	14.9	54000	8650	16.0	55000	8950	16.3	56000	9250	16.5
7000.	14850	21.2	75600	17090	22.6	77000	17650	22.9	78400	18210	23.2
90000	22850	25.4	97200	25730	26.5	99000	26450	26.7	100800	27170	27.0
00000	26850	26.9	108000	30250	28.0	110000	31250	28.4	112000	32250	28.8
20000	36250	30.2	129600	41050	31.7	132000	42250	32.0	134400	43450	32.3
50000	51250	34.2	162000	57250	35.3	165000	58750	35.6	168000	60250	35.9

TABLE 18

PROJECTIONS OF INCOME, TAXES AND AVERAGE TAX RATES
WHEN INCOME INCREASE MATCHES INFLATION
FOR ASSESSMENT YEAR 1988-89

			When the annual inflation rate is								
A.Y. 1986-87			8 Per cent			10 Per cent			12 Per cent		
Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate
20000	0	0.0	23328	0	0.0	24200	50	0.2	25088	272	1.1
25000	250	1.0	29160	1290	4.4	30250	1562	5.2	31360	1858	5.9
30000	1500	5.0	34992	2947	8.4	36300	3340	9.2	37632	3739	9.9
40000	4450	11.1	46656	6446	13.8	48400	6970	14.4	50176	7502	15.0
50000	7450	14.9	58320	10178	17.5	60500	11050	18.3	62720	11938	19.0
70000	14850	21.1	81648	19509	23.9	84700	20730	24.5	87808	21973	25.0
90000	22850	25.4	104976	28840	27.5	108900	30700	28.2	112896	32698	29.0
100000	26850	26.9	116640	34570	29.6	121000	36750	30.4	125440	38970	31.1
120000	36250	30.2	139968	46234	33.0	145200	48650	33.6	150528	51514	34.2
150000	51250	34.2	174960	63730	36.4	181500	67000	36.9	188160	70330	37.4

TABLE 1C

PROJECTIONS OF INCOME, TAXES AND AVERAGE TAX RATES
WHEN INCOME INCREASE MATCHES INFLATION
FOR ASSESSMENT YEAR 1989-90

| | A.Y. 1986-87 | | When the annual inflation rate is | | | | | | | | |
| | | | 8 Per cent | | | 10 Per cent | | | 12 Per cent | | |
Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate	Gross Income	Tax	Average Tax Rate
20000	0	0.0	25194	298	1.2	26620	655	2.5	28098	1024	3.6
25000	250	1.0	31492	1897	6.0	33275	2432	7.3	35123	2986	8.5
30000	1500	5.0	37791	3737	10.0	39930	4429	11.1	42147	5094	12.1
40000	4450	11.1	50388	7566	15.0	53240	8422	15.8	56197	9328	16.6
5000¡	7450	14.9	62995	12044	19.1	66550	13470	20.2	70246	14948	21.3
70000	14850	21.2	88179	22121	25.1	93170	24118	25.9	98344	26187	26.6
90000	22850	25.4	113374	32937	29.1	119790	36145	30.2	126443	39471	31.2
100000	26850	26.9	125971	39235	31.1	133100	42800	32.2	140492	46496	33.1
120000	36250	30.2	151165	51832	34.3	159720	56110	35.1	168591	60545	35.9
150000	51250	34.2	188956	70728	37.4	199650	76075	38.1	210739	81619	38.7

TABLE 2 A

PERCENTAGE INCREASE IN TAXES
AND THE PORTIONS OF THE INCREASES
DUE TO BRACKET CREEP
FOR THE ASSESSMENT YEAR 1987-88

A.Y. 1986-87		When the annual inflation rate is					
		8 Per cent		10 Per cent		12 Per cent	
Gross Incomo - Rs.	Taxes Rs.	Increase in Taxes	Portion due to Bracket creep	Increase in Taxes	Portion due to Bracket creep	Increase in Taxes	Portion due to Bracket creep
25000	250	200.0	96.0	250.0	96.0	300.0	96.0
30000	1500	44.7	82.1	56.7	82.4	68.7	82.5
40000	4450	21.6	62.9	27.0	62.9	32.4	62.9
50000	7450	16.1	50.3	20.1	50.3	24.2	50.3
70000	14850	15.1	47.0	18.9	47.0	22.6	47.0
90000	22850	12.6	36.5	15.8	36.5	18.9	36.5
100000	26850	12.7	36.8	16.4	39.0	20.1	40.3
120000	36250	13.2	39.6	16.6	39.6	19.9	39.6
150000	51250	11.7	31.7	14.6	31.7	17.6	31.7

TABLE 28

PERCENTAGE INCREASE IN TAXES
AND THE PORTIONS OF THE INCREASES
DUE TO BRACKET CREEP
FOR THE ASSESSMENT YEAR 1988-89

A.Y.1986-87		When the annual inflation rate is					
		8 Per cent		10 Per cent		12 Per cent	
Gross Income Rs.	Taxes Rs.	Increase in Taxes	Portion due to Bracket creep	Increase in Taxes	Portion due to Bracket creep	Increase in Taxes	Portion due to Bracket creep
25000	250	416.0	96.0	524.8	96.0	643.2	96.0
30000	1500	96.5	82.8	122.7	82.9	149.3	83.0
40000	4450	44.9	62.9	56.6	62.9	68.6	62.9
50000	7450	36.6	54.6	48.3	56.5	60.2	57.8
70000	14850	31.4	47.0	39.6	47.0	48.0	47.0
90000	22850	26.2	36.5	34.4	38.9	43.1	41.0
100000	26850	23.8	42.1	36.9	43.0	45.1	43.6
120000	36250	27.5	39.6	34.8	39.6	42.1	39.6
150000	51250	24.4	31.7	30.7	31.7	37.2	31.7

TABLE 2C

PERCENTAGE INCREASE IN TAXES
AND THE PORTIONS OF THE INCREASES
DUE TO BRACKET CREEP
FOR THE ASSESSMENT YEAR 1989-90

A.Y. 1986-87		When the annual inflation rate is					
		8 per cent		10 per cent		12 per cent	
Gross Income Rs.	Taxes Rs.	Increase in Taxes	Portion due to Bracket creep	Increase in Taxes	Portion due to Bracket creep	Increase in Taxes	Portion due to Bracket creep
25000	250	658.8	96.1	872.8	96.2	1094.4	96.3
30000	1500	152.5	83.0	195.3	83.0	239.6	83.1
40000	4450	70.0	62.9	89.3	62.9	1u9.6	63.1
5000C	7450	61.7	57.9	80.8	59.0	100.6	59.8
70000	14850	49.0	47.0	62.4	47.0	76.3	47.0
90000	22850	44.1	41.2	58.2	43.1	72.7	44.3
100000	26850	46.1	43.7	59.4	44.3	73.2	44.7
120000	36250	43.0	39.6	54.8	39.6	67.0	39.6
150000	51250	38.0	31.7	48.4	31.7	59.3	31.7