CHAPTER - IV

IMPACT OF CORPORATE TAX ON CORPORATE BEHAVIOUR

4.1. INTRODUCTION:

Taxation plays an important role in achieving socio-economic benefits to the country. Its efficiency lies on stimulating overall productive economic growth which depends on the level of savings, investment, and employment leading to the ultimate increase in G.N.P. and N.N.P. There is no gainsaying that corporate sector plays an important role in this regard. Tax policy of the Government is a powerful instrument to regulate the economy. An expanding economy with greater output and turnover will generate higher tax revenue. Though, economic growth is significant in India, especially due to achievement of the Five Year Plans, the uneven pattern of regional growth has drawn the attention of the economists. However, it would be our attempt in this chapter to analyse how far taxation has influence on corporate behaviour. 'Corporate behaviour' might be taken for our purpose as reactions of corporations due to tax burden. That reactions might be in the form of generation of employment, creation of assets, savings in tax liability, distribution in financial structure, profit making capabilities, and shifting of tax incidence. Macro and micro level studies have been made and for that purpose different publications, both Government and Public, and reports and news bulletins have been utilised.

4.2. CORPORATE INVESTMENT:

Confronted with high rates of inflation, sizeable reduction in the growth rates of labour productivity and erosion of competitiveness in the marketing of many products in international sphere, most of the industrially developed and developing countries in the World are taking various efforts in recent years to subsidise different forms of investment activities.[1] India is no exception to that general trend. The main policy efforts subsidizing investment activities involve the introduction of various forms of depreciation measures,[2] general investment credits, investment credits in specific planned seetors and diminution in the rates of corporate taxation. All these measures are directed towards liberalisation of capital cost recovery and increasing the disposable amount of income for further investment in the business. Though there are innumerable number of influences like availability of infra-structural facilities, licensing policies, regulation of foreign exchange, nature of capital market which might impinge on investment outlays, 'taxation' has been regarded as not of lesser importance than these measures. Rather it has been regarded as the most powerful fiscal policy to regulate the quantum of capital spending in the

1. 'I.M.F. Survey', Wasington, April 20, 1981 pp. 118-119.
2. Meij, J. L. ed. - 'Depreciation and Replacement Policy'. North Holland Pub. Co., Amsterdam - London., 1961.

business undertakings.

Almost all the industrial countries like U.S.A., U.K. Germany, France, Japan and the developing countries like India and Pakistan have developed various forms of capital incentive schemes but hardly there is any country which has assessed the impact of such incentive schemes on actual growth of investment. It is doubtful whether corporate bodies themselves are well aware of the impact of various tax incentives on actual amount of investment in terms of spending in fixed assets.[3]

Many economists have formulated theoretical framework and econometric models for analysing the effect of various economic factors on investment[4] but there is hardly any work which might show the effect of corporate tax incentives on their self-investment.

There are alternative ways of studying the impact of tax incentives on investment, one with the econometric models guided by economic theory and the other by establishing relationship between the corporate profits, before and after tax, and the rate of investment in fixed assets. For our study it has been decided to follow the latter one. Our hypothesis is that the accumulation

---

3. Fromm, Gary. ed., - 'Tax Incentives and Capital Spending', North Holland publishing company, Amsterdam - London, 1971.

4. Ganguly, Subrata - 'Public Finance - A normative approach', Nababharat publishers, Calcutta, 1975.

of fixed assets varies inversely with the provisions of incentives. The hypothesis to be tested by preparing a number of tables from published data and thereby analysing the relationship between the two variables viz., profits and fixed assets formation.

In this context we have taken the data published by the Industrial Credit and Investment Corporation of India Ltd.[5] regarding financial performance of 417 non-government public limited companies assisted by the Corporation having total paid-up capital of Rs. 1,472.9 crores in 1979-80. Such paid-up capital accounted for 53.5 per cent of the total paid-up capital of all non-government public limited companies at work in March, 1980. The study also deals with the data published by R.B.I. on the financial performance of 1720 non-financial, non-government, Public Limited Companies.

On analysis of the Tables (IV. 1,2) it may be noted that the rate of growth of gross fixed assets formation accelerated from 10.3 per cent in 1977-78 to 15.4 per cent in 1980-81, the rising trend being unhampered as 10.9% in 1978-79 and 11.6% in 1979-80. Gross fixed assets increased by Rs. 532.66 crores in 1977-78, Rs. 619.85 crores in 1978-79, Rs. 729.38 crores in 1979-80 and Rs. 1081.35 crores in 1980-81. The plant and Machinery component, which accounted for 67.6 per cent of the increase in

---

5. 'Financial Performance of Companies' - I.C.I.C.I : Portfolio 1980-81, Bombay.

Table - IV.1

FIXED ASSETS FORMATION AND TAXATION
(417 Pub. Ltd. Cos.)

(Rs. Crores)

Items	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81
Gross Fixed Assets (Plant & Machinery)	5149.92 (3799.68)	5682.58 (4153.92)	6302.83 (4624.59)	7032.21 (5129.78)	8113.56 (5861.75)
Net Fixed Assets	2653.81	2929.78	3257.50	3655.47	4337.82
Profits before Tax	522.61	555.98	667.61	834.71	904.35
Provision for Taxation	281.23	276.43	315.55	361.56	377.59
Profits after Tax	241.38	279.55	372.06	473.15	526.76
Dividends	134.77	145.78	169.92	187.70	206.52
Retained Profits	106.61	133.77	202.14	285.45	320.24
Gross Sales	9222.36	9966.37	11,207.12	13,055.56	15,415.89
Net Sales	8,068.61	8,765.64	9,788.31	11,346.11	13,476.03

Source : 'Financial performance of Companies', ICICI : Portfolio 1980-81.

Table - IV.2

INVESTMENT GROWTH RATES AND TAXATION

Items	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81
Absolute Growth of Gross Fixed Assets (Rs. Crores)		532.66	619.85	729.38	1081.35
Absolute Growth of Plant & Mach. (Rs. Crores)		354.24	470.67	505.19	731.97
Rate of Growth of Gross Fixed Assets (%)		10.3	10.9	11.6	15.4
Rate of Growth of Plant Machinery (%)		9.3	11.3	10.9	14.3
Retained profits as a percentage of profits before tax.	20.4	24.1	29.4	34.1	35.4
Dividends as a percentage of profits before tax	25.8	26.2	25.4	22.5	22.8
Tax provision as a percentage of profits before tax.	53.8	49.7	47.2	43.4	41.7
Net profit margins.	6.47	6.34	6.82	7.35	6.71

Source : Table IV.1

gross fixed assets in 1980-81, registered a rise of 14.3% in 1980-81 from 9.3% in 1977-78. In absolute terms the growth of plant and machinery was recorded corresponding to the immediate previous year as Rs. 354.24 crores in 1977-78 Rs. 470.67 crores in 1978-79, Rs. 505.19 crores in 1979-80 and Rs. 731.97 crores in 1980-81. Despite erosion of profit margins*1 from 7.35% in 1979-80 to 6.71% in 1980-81, the retained profits as a percentage of profits before tax increased to 35.4% in 1980-81 from 20.4% in 1976-77 and 34.1% in 1979-80. The share of dividends in profits before tax, on the other hand, declined from 25.8% in 1976-77 to ~~te~~ 22.8% in 1980-81. The increasing percentage of retained profits on profits before tax over the years as 'ploughing back' was made possible presumably by an effective use of various fiscal measures including tax incentives by the corporate sector. As to justify further, tax provision as a percentage of profits before tax shows the declining trend from 53.8% in 1976-77 to 49.7% in 1977-78, 47.2% in 1978-79, 43.4% in 1979-80 and 41.7% in 1980-81.

Table IV.3 has been prepared showing the number of companies by size of gross fixed assets in the year 1980-81. From analysis of the Table, it appears that out of 417 public limited companies assisted by the I.C.I.C.I, most of the companies maintain higher investment in fixed assets. Out 417 companies 390 companies possess fixed assets of more than Rs. 1 crore each, of which 180 companies claim for investment in fixed assets of Rs. 10

---

*1 Profits before tax/Net Sales x 100, indicator of overall efficiency, or management competence.

Table - IV.3

COMPANIES BY SIZE OF GROSS FIXED ASSETS

(1980 - 81)

Size Group (Gross Fixed Assets)	No. of Companies	(%)
Rs. 1 Crore and below	27	6.5
Between Rs. 1 Crore and Rs. 5 crore	133	31.9
Between Rs. 5 Crore and Rs. 10 Crore	77	18.5
Rs. 10 Crore and above	180	43.1
	417	100.0

Source : 'Financial Performance of Companies', ICICI : Portfolio 1980 - 81.

crores and above.

Let us now analyse the sources of funds used to finance the increasing amount of gross fixed assets of the said 417 public limited companies. For this purpose a Table IV.4 has been prepared with the help of data published by ICICI as mentioned earlier. The Table shows the increasing amount of gross assets, in relation to the preceeding years, invested in the business from 1977-78 to 1980-81 and further shows the sources of funds utilised for such investment in the respective years. It might be noted from the analysis that the financing of the increase in total assets of the 417 non-government public limited companies was made by internal sources as 33.1% in 1979-80 which rose to 36.2% in 1980-81. Such internal sources comprise depreciation and reserves & surplus. The share of reserve & surplus in the total sources rose from 8.9% in 1977-78 to 16.2% in 1980-81. That indicates the larger plough back of profits in investments by the corporate sector. Larger 'ploughing back' of resources might be the result of availability of various tax incentives by the corporate bodies.

Again information was sought by the ICICI from different public limited companies by sending questionnaire regarding means of financing of proposed capital expenditure in 1981-82 and 1982-83. 251 companies furnished the details. With the help of

Table-IV.4

SOURCES AND UTILISATION OF FUNDS

(417 Pub. Ltd.Cos.)

(Rs. Crores)

Items	1977-78	%	1978-79	%	1979-80	%	1980-81	%
Increase in Gross Assets*	863.65		1159.23		1799.74		1987.04	
Internal sources of funds:								
Depreciation	256.69	29.7	292.53	25.2	331.41	18.4	399.00	20.0
Reserve & Surplus	76.73	8.9	190.02	16.4	264.94	14.7	320.72	16.2
	333.42	38.6	482.55	41.6	596.35	33.1	719.72	36.2
External sources of funds:								
Paid-up Capital	88.53	10.2	71.18	6.1	75.83	4.2	91.28	4.5
Long-term Borrowings	87.46	10.4	109.67	9.4	226.00	12.5	218.94	11.2
Others+	354.19	40.8	495.83	42.9	901.56	50.2	957.10	48.1
	530.23	61.4	676.68	58.4	1203.39	66.9	1267.32	63.8
	863.65	100.0	1159.23	100.0	1799.74	100.0	1987.04	100.0

Source : 'Financial Performance of Companies' - ICIC : Portfolio 1980-81

* Gross Fixed Assets + Inventories + Other Current Assets.

x including Debentures

\+ Short-term Bank Borrowings, unsecured loans and deposits, sundry creditors and other current liabilities.

such details a comprehensive table IV.5 has been prepared which would reflect the increasing reliance on internal sources. Internal sources for proposed capital expenditure of the 251 public limited companies reflect 34.2% share in 1981-82 and 43.5% in the year 1982-83.

However investment growth rates is not uniform in all types of industries. As analysed from the Table IV.6 prepared with the help of data*2 published by ICICI, it may be noted that the nature of industries whose growth rates of investment in 1980-81 in comparison with 1979-80 are more than the average growth rates (13.46%) of 285 companies are Cement, Chemicals & Petro-chemicals, Electrical Equipment, Food Products (other than Sugar), Machine Manufacturing, Sugar, and Textiles of which Sugar industries top the list (22.45%). Whereas Power Generation, Metal Products-non-ferrous, Paper Pulp, Rubber Products witnessed a very low rate of gross fixed assets formation of 7.58, 4.47, 11.04 and 9.96% respectively. So it might be noted that there seems to be an inequitable accumulation of fixed assets - formation.

Again if the data published in the Reserve Bank of India Bulletins regarding finances of 1720 medium and large

*2. Against the questionnaries sent by ICICI to its assisted companies, usable information was obtained from 285+ companies. From the data of such companies as published by ICICI - 1980-81, a table is prepared for analysis.

Table - IV.5

MEANS OF FINANCING OF PROPOSED CAPITAL EXPENDITURE

(251 Pub. Ltd. Cos.)

(Rs. Crores)

Items	1981-82	%	1982-83	%
Internal sources	314	34.2	303	43.5
Borrowings (Rupee & Foreign currency)	559	60.8	369	52.9
Others	45	5.0	25	3.6
	918	100.0	697	100.0

Source : 'Financial Performance of Companies' ICICI : Portfolio 1980-81.

*Out of 251 Companies, 132 form a part of 417 Companies and as given by the ICICI study the proposed internal source on such 132 Companies constitute 35.9% in 1981-82 and 46.6% in 1982-83 for financing capital expenditure.

Table - IV.6

INVESTMENT GROWTH RATES OF INDUSTRIES

(285 Pub. Ltd. Cos.)

Year	1979 - 80		1980 - 81	
Industries*	No. of Cos.	G.F. Assets (Rs. lacs)	G.F. Assets (Rs. lacs)	Growth rate as %
1. Automobiles and Automobile Ancillaries.	14	10,496	11,900	13.37
2. Cement	4	14,309	17,100	19.50
3. Chemicals & Petro-chem.	55	51,738	59,057	14.14
4. Power Generation and Distribution	3	12,281	13,212	7.58
5. Electrical Equipment	20	12,646	14,755	16.67
6. Food Products (other than Sugar)	5	5,200	6,130	17.88
7. Glass and Pottery	7	2,206	2,471	12.01
8. Mach. Mfg.	32	14,111	16,627	17.83
9. Metal Products (Non-ferrous)	4	14,087	14,717	4.47
10. Metal Products (Ferrous)	36	71,936	81,568	13,39

Contd.....

Table -IV.6 . (Contd.....)

11. Pulp, Paper and paper Products	15	18,970	21,065	11.04
12. Rubber Products	2	2,368	2,604	9.96
13. Shipping	N.A.			
14. Sugar	11	8,804	10,781	22.45
15. Textiles	30	25,285	29,738	17.61
16. Diversified	3	10,314	11,430	10.82
17. Misc.	44	48,231	52,864	9.60
All Industries	285	3,22,582	3,66,019	13.46

Source : 'Financial Performance of Companies' ICICI : Portfolio 1980-81.

*Classification is based on the "International standard Industrial classification of All Economic Activity" published by the United Nations, stated by ICICI : Portfolio 1980-81.

public limited companies are duly analysed (Table IV.7) one might come to the same conclusion as to the linear relationship between corporate tax incentives and investments in fixed assets*3.

Pre-tax profits increased by 8.1% in 1977-78 and 23.4% in 1978-79 but post-tax profits recorded a sharper growth from 13.1% in 1977-78 to 40.8 in 1978-79. At the same time retained profits as a percentage of profits before tax also showed an increasing trend from 17.6% in 1977-78 to 25.4% in 1978-79 accompanied by the diminishing trend of tax provision as a percentage of profits before tax as 57.2% in 1977-78 and 51.2% in 1978-79. Larger ploughing back is further established when increasing reliance is made on internal sources for capital formation. The internal sources of funds as percentage of total source of funds in 1977-78 was 41.9, whereas in 1978-79 it was 42.5. The annual growth rates of gross capital formation was 8.2% in 1977-78 and 10.8% in 1978-79. It might be safely concluded from such analysis of the Table IV.7. that greater investment, financed by greater 'ploughing back', had been caused by an

*3. 1720 selected medium and large public limited companies (each with a paid up capital of Rs. 5 lakhs or above). Of the selected companies 596 companies (35 per cent) closed their accounts in December, 500 companies (29 per cent) in March, 288 companies (17 per cent) in June and 142 companies (8 per cent) in September. The account closing dates of the remaining 194 companies were spread over the other months for the study years 1977-78 and 1978-79. R.B.I. Bulletins, May 1980, Nov. 1981.

Table - IV.7

GROWTH OF CORPORATE SECTOR

(1720 public limited Cos.)

Items	1976-77	1977-78	1978-79	1979-80	1980-81
A. Gross Capital formation, increased p.a. (G.F. Assets + Inventories) as %		8.2	10.8		
Net Capital formation, increased p.a. (N.F. Assets + Inventories) as %		7.3	11.1		
Profits before tax increased p.a. as %		8.1	23.4		
Profits after tax increased p.a. as %		13.1	40.8		
B. Retained profits as percentage of profits before tax.		17.6	25.4		
Tax provision as percentage of profits before tax.		57.2	51.2		
C. Internal sources of funds as percentage of total sources of funds.		41.9	42.5		
D. Number of profit-making companies.		1,242	1,292		

Source : R. B. I. Bulletins, May, 1980, Nov. 1981.

effective utilisation of different fiscal concessions including powerful tax incentive schemes on depreciation and investment allowances.

Like the analysis based on ICICI data regarding investment growth rates of individual industries (Table IV.6) where considerable variations were observed, the same conclusion might be drawn by examining the data supplied by R.B.I. on 1720 non-financial non-government public limited companies.[6]

It might be noted from R.B.I. data that larger companies*4 were able to plough back more amount of profits, presumably by taking the advantage of different fiscal benefits pertaining to tax incentives, than the smaller companies. Tax provision as a percentage of profits before tax diminished in 1978-79 in case of companies having paid-up capital of Rs. 10 lakhs or more and at the same time profits retained as percentage of profits after tax increased for such companies for the same period (Table IV.8). Number of profit-making companies also increased from 1242 to 1292 in 1978-79 out of 1720 public limited companies considered by the Reserve Bank of India in its study. The benefit of profitability seems to be enjoyed mainly by the companies of size group Rs. 25 lakhs and above by taking the advantages of different incentive schemes.

---

6. R.B.I. Bulletin, Nov, 1981 - 'Finances of medium and large public limited companies', 1978-79, pp. 976-77.

*4. Paid-up capital Rs. 10 lakhs and above.

Table - IV.8

PROFIT ALLOCATION ACCORDING TO THE SIZE OF PAID-UP CAPITAL

(1720 Pub. Ltd., Cos.)

Size of paid-up Capital	Tax provision as a percentage of ← Profits retained					
	Profits before tax		Profit after tax		No. of profit-making Cos.	
	1977-78	1978-79	1977-78	1978-79	1977-78	1978-79
Rs. 5 lakhs - 10 lakhs	68.3	88.3	54.5	+	130	103
10 - 25	60.5	62.1	49.1	58.5	321	332
25 - 50	73.4	53.1	19.7	66.0	238	255
50 - 1 crore	92.4	65.6	+	34.8	204	223
1 crore - 2	64.4	56.4	29.1	51.9	146	147
2 - 5	59.6	54.6	41.1	50.8	115	134
5 crores and above	49.7	45.6	48.4	52.9	88	98
TOTAL	57.2	51.2	41.0	51.9	1242	1292

Source : R. B. I. Bulletin, Nov., 1981.

+ Numerator is negative.

From the above two studies certain tentative conclusions can be drawn :

1. Based on I.C.I.C.I. data:

i) Rate of growth of capital formation shows an increasing trend over the years;

ii) In the year 1980-81, 43% of 417 companies possess investment in fixed assets of over Rs. 10 crores each;

iii) Investment financing is increasingly contributed by internal sources over the years, though such share suddenly dropped to a certain extent in 1979-80;

iv) For the proposed capital expenditure of 251 companies, assisted by I.C.I.C.I., the share of internal sources on such project - financing has increased in 1982-83 corresponding to 1981-82;

v) Investment growth rates show an uneven distribution among the industries. The industries having higher investment in fixed assets over the average growth rate of 17 industries of 285 public limited companies are cement, chemicals & petrochemicals, electrical equipment, sugar, food products, machine manufacturing and textiles;

vi) Incidence of tax substantially reduced during the

years from 53.8 per cent in 1976-77 to 41.7 per cent in 1980-81;

vii) Inspite of erosion of profit margin, share of retained profits increased during the years from 20.4 per cent in 1976-77 to 35.4 per cent in 1980-81 though there is a slight reduction of the share of dividend from 25.8 to 22.8% during the same period;

viii) Higher retention was made possible by availing of different tax benefits by the companies;

ix) There is a linear relationship between tax incentives and investment in fixed assets and greater tax incentives lead to lower incidence of tax and higher retention of profits.

2. Based on R. B. I. data:

i) Rate of growth of post - tax profits is higher than the growth rate of pre-tax profits;

ii) Incidence of tax decreased during the years;

iii) Lesser 'incidence' for companies having paid-up capital of Rs. 10 lakhs or more;

iv) Profitability increases for companies having paid-up capital of Rs. 25 lakhs and more;

v) Number of profit-making companies increases over the years;

vi) Greater capital formation;

vii) Greater capital formation is caused by greater utilisation of internal sources of funds constituting mainly depreciation and investment allowance reserve;

viii) Bigger companies, having paid-up capital of Rs. 25 lakhs and above, enjoy higher tax incentives, higher investment in fixed assets, higher profitability and lower tax incidence;

ix) There is also a linear relationship between tax incentives and investment in fixed assets.

International experience:[7]

Let us now look forward to the system of different tax incentive schemes for capital cost recovery leading to more amount of investment with reference to the selected countries. It would also be interesting to analyse the tax subsidy rates on investment in different countries.

France has adopted a 10 per cent additional first-year tax deduction for investment undertaken since October 1980 in new assets depreciable under the declining balance method. Belgium has introduced an exemption of upto 5 per cent of taxable income of corporate bodies for reinvested earnings. The

---

7. Kopits, Gorge F., Senior Economist, I. M. F. European Department. - 'Industrial countries Increase Their Use of Tax Incentives to Stimulate Investment', I.M.F. Survey, April 20, 1981, pp. 118-119.

Netherlands has raised permanently basic rate of cash grant*5 for machinery and equipment from 7 per cent to 10 per cent since June 1981. In the United Kingdom, the budget proposal for 1981-82 contains a proposal to raise initial deduction for industrial buildings purchased since then from 50 per cent to 75 per cent. In the United States the most far-reaching proposal has been made in February 1981 for replacing existing asset lives by 10-5-3*6 accelerated system cost recovery plan and applying a combination of double declining balance and sum-of-the years - digists methods of depreciation over the new lives. The proposal also provides for an extension of the 10 per cent investment tax credit to some structures and to all equipment except motor vehicles, which would qualify for a 6 per cent credit.

Analysing the countrywise break up of tax subsidy rates from Table IV.9 it may be noted that the United States would move to the top of the list of countries (assuming full implementation of the new scheme) with a 11.8 per cent subsidy for non-residential fixed investment in 1981 following by the United Kingdom and Italy, with 7.8 percent and 5.2 per cent subsidy rates, respectively. In France and the Netherlands, the subsidy rates increase by about 3 percentage points in 1981. The

*5 refundable investment tax credit.

*6 10 years for most industrial buildings, 5 years for machinery and equipment and 3 years for motor vehicles.

Table-IV.9

TAX SUBSIDY RATES

(Selected countries)

On Non-residential Fixed Investment[1]				On Manufacturing Fixed Investment		
(as percentage of asset price)						
COUNTRY	1973	1980	1981	1973	1980	1981
Belgium	-2.5	-2.5	-2.5	-2.4	-2.4	-2.4
France	-0.1	-0.1	2.9	1.2	1.2	4.4
Germany, Fed, Repub.	-6.1	-4.2	-4.2	-6.7	-5.5	-5.5
Italy	4.6	5.2	5.2	4.1	5.0	5.0
Japan	-4.6	-4.6	-4.6	-3.4	-3.4	-3.4
Netherlands	-5.2	0.2	2.7	-4.3	4.2	6.2
United Kingdom	6.5	6.9	7.8[2]	9.3	10.9	13.1[2]
United States	1.1	3.9	11.8[2]	1.3	3.3	12.8[2]

Source : I.M.F. Survey, Washington, April 20, 1981.

1. A positive value indicates a subsidy; a negative value represents a tax. It is assumed that the income tax rate is 46 per cent, the nominal discount rate is 10 per cent, and the inflation - adjusted discount rate is 5 per cent.

2. Calculated on the basis of new administrative proposal.

Federal Republic of Germany and Japan seem to be reluctant of increasing tax subsidy of capital cost recovery in 1981 but to maintain generous fiscal treatment as were in 1980.

In the same Table (No. IV.9) the concentration of a few countries having higher fiscal incentives for fixed investment in the manufacturing sector is reflected. The tax subsidy rates, on full implementation of the new proposed scheme, in U.S.A. and U. K., would climb from 3.3 per cent to 12.8 per cent and from 10.9 per cent to 13.1 per cent in 1981, respectively. French, Italian and Netherlands' tax subsidy rates in the manufacturing sector clustered around 5 per cent while the rate remains stable in both the years 1980 and 1981 in case of the Federal Republic Germany.

The Table IV.10 reflects the relative quantitative importance of tax subsidies provided for new investment in a particular asset aggregate in different countries. It might be noted from the analysis of impact of tax subsidy in different assets in the same country, maximum tax subsidy has been granted for the year 1981 for new investment in non-residential buildings in case of Belgium, Federal Republic of Germany and Japan; for electrical machinery in case of France only; for constructional fixed investment in case of Italy, U. K. and U.S.A. Netherlands has proposed maximum tax subsidy for producer durables in comparison with other assets.

Table - IV.10

TAX SUBSIDY RATES ON NON RESIDENTIAL FIXED INVESTMENT, BY ASSET GROUP, 1981.[1]

(selected countries)

Country	Non-residential Buildings.	Other Construction.	Transport equipment.	Non-electrical machinery	Electrical machinery.	Other producer Durables
Belgium	-7.0	-4.9	0.6	1.7	4.2	2.4
France	-4.9	3.3	5.1	6.8	7.2	1.8
Germany, Fed, Rep.	-16.8	-1.3	1.1	1.1	-0.3	1.9
Italy	5.8	12.6	4.8	4.9	7.4	5.6
Japan	-11.3	-7.5	-1.8	0.8	1.1	-0.1
Netherlands	3.3	3.5	1.5	5.6	2.9	5.8
U. K[2]	0.9	15.9	5.4	11.2	12.8	12.4
U.S.A.[2]	5.6	17.6	12.5	13.8	15.6	16.0

Source : I.M.F. Survey, April 20, 1981.

1. Note : as in Table IV.9.

4.3. TAX SAVINGS:

This section presents estimates of the impact of tax incentives on tax savings with special reference to selected companies in the private corporate sector during the period - 1975-76 to 1979-80. Tax savings by corporate bodies might be effected from different sources of rebates and reliefs allowed by the Income Tax authorities under the Act. But the magnitude of such savings would be dependent on the tax planning*8 capability and the ingenuity of the management as to how best the tax benefits were availed of. However, the major sources of tax savings might be sorted out as excess depreciation allowed under the Income Tax Act over the books of accounts; Investment Allowance; the benefits of Set-off and Carry-forward of Losses; Capital Expenditure on Scientific Research; Export-market Allowances; Tax Holiday Benefits; Dividends attributable to profits and gains from new industrial undertakings; Inter-corporate Dividends; Royalties received from foreign enterprises.

It would be our endeavour to find out the aggregate amount of tax savings due to various tax benefits availed of by corporate bodies in general and by three companies in particular and at the sametime to point out the impact of each of such sources of incentives during the period from 1975-1976 to 1979-

*8 It is the art and science of planning the company's operations in such a way as to attract the minimum liability to tax by availing of the various concessions, allowances and reliefs provided for in the tax laws. - Accountancy (The Journal of the Institute of chartered Accountant of England and Wales) March, 1978, p. 102.

1980 in such companies. Industrywise impact of Depreciation and Investment Allowances would also be sorted out and overall tax incidence on the basis of aggregate value of total assets of 220 companies would be shown for 1979-80 and 1980-81. The hypothesis being, utilisation of tax benefits is evenly distributed to all companies irrespective of size.

For the purpose of analysis we have utilised the data supplied in the 'All India Income-Tax Statistics',[8] Government of India, Directorate of Inspection, New Delhi and the data published by the Research Bureau of the Economic Times, Calcutta. The former being utilised for the purpose of showing gross income; deductions, rebates and reliefs; assessed income; tax demand and tax relief allowed for the corporate sector as a whole and the later for showing aggregate tax savings of the 220 companies in the private corporate sector, covering 19 industries; incidence of tax on industries; distribution of tax benefits on the basis of asset-size of companies and the actual tax savings with reference to the three selected companies, viz., Voltas, Associated Bearing and TISO.

8. Government of India - 'All India Income Tax Statistics', Directorate of Inspection, New Delhi.

Note:

Gross Income = Income from all sources, both in India and abroad less Deductions under Chapter IV of the Income Tax Act.

Income Assessed = Gross income less (loss set off + deductions) deductions under Chapter VIA of the Act.

Tax relief = Amount of deduction $\times$ $\frac{\text{Tax demand on income assessed}}{\text{Income assessed.}}$

There is hardly any scope of getting the detail information regarding the types and magnitude of tax benefits availed of by specific companies. So, we find no other alternative but to rely on the data relating to the three stated companies as published by the Research Bureau of Economic Times[9] to test our hypothesis.

The aggregate tax savings of the companies in the years - 1975-76 to 1979-80 are shown in Table IV.11. The deductions, mainly under different provisions of Sec. 80 and loss set off, taken together seems to be highest in 1979-80, which amounted to Rs. 80.4 crores, followed by Rs. 62.1 crores in 1977-78; Rs. 46.3 crores in 1976-77; Rs. 45.2 crores in 1975-76 and Rs. 40.1 crores in 1978-79. Tax savings, for the years from 1975-76 to 1979-80, calculated as Rs. 26.46, Rs. 27.76, Rs. 36.61, Rs. 23.08 and Rs. 42.78 crores respectively. So, it is said that the benefits of deductions lead to the lowering of tax demand to a considerable extent in the corporate sector.

It had been calculated by the Research Bureau, Economic Times that the aggregate tax savings*9 of the 220 companies in the private corporate sector was to Rs. 133 crores in 1980-81 and Rs.114 crores in 1979-80. The increased amount of tax savings in 1980-81 might be the result of greater utilisation of tax incentives in com-

---

9. Venkataraman, N.V. and Nayer, A.P. - "Tax savings 16% of profits", The Economic Times, Research Bureau, Jan. 6, 1982.

*9 Computed tax on the amount by allowable savings at the prevailing rates.

Gross Income, Losses Set Off, Deductions, Income Assessed, Tax Demand and Tax Relief

for

C O M P A N I E S

(1975 - 76 to 1979 - 80)

(Rs. crores)

Year	No. of assess-ments.	Gross Income	Loss Set off	Deductions	Income assessed	Tax Demand	Tax Relief.
1	2	3	4	5	6	7	8
1975-76	13,304	892.6	17.9	27.3	847.4	496.0	26.46
1976-77	13,619	932.7	15.6	30.7	886.4	531.5	27.76
1977-78	14,585	1100.1	24.9	37.2	1038.0	612.0	36.61
1978-79	11,457	1386.2	16.5	23.6	1346.1	774.6	23.08
1979-80	11,636	2100.8	29.8	50.6	2020.4	1075.1	42.78

Source : All India Income Tax statistics, Directorate of Inspection, New Delhi.

parison in 1979-80, forming 15.82 per cent of the profits before tax in 1980-81 (13.83% in 1979-80). Investment allowance including accrued development rebate amounted to Rs. 107.79 crores in 1980-81 and Rs. 90.44 crores in 1979-80 (Table IV.12) which as a single item could claim a tax savings of Rs. 63.73 crores in 1980-81 and Rs. 53.47 crores in the previous year.*10 Such tax savings represented around 47.9 per cent and 46.9 per cent in the respective years.

While profits before tax (after deducting depreciation but before providing investment allowance) stood Rs. 840.82 crores in 1980-81 corresponding to the previous year's figure of Rs. 824.11 crores but the tax provision became lower in 1980-81 as Rs. 364.32 crores in comparison with Rs. 373.55 crores in 1979-80. That might be the effect of greater utilisation of tax incentives in overall corporate tax planning by the said 220 public limited companies in our study.

It would be noted from the analysis of Tables IV.12 & 13 that the incidence of tax was not uniform in all the indus-

---

*10. Calculated on the basis of income tax 55% plus surcharge 7.5% i.e. two together 59.125% as per Finance Act, 1979 applicable from the income year 1978-79, supposing the companies are widely-held and having income exceeding Rs. 1,00,000 p.a.

Table - IV.12

INDUSTRYWISE CORPORATE TAX INCIDENCE

(Rs. lakhs)

Industries	No. of Cos.	Profit before Tax (after deducting Depn. but before Inv. Allowance.		Tax Provision		Depreciation		Inv. Allowance & accelerated Dev. Rebate.		Tax incidence (Tax Prov./Profit before Tax) x 100	
		1979-80	1980-81	1979-80	1980-81	1979-80	1980-81	1979-80	1980-81	1979-80	1980-81
1	2	2		4		5		6		7	
Pharmaceutical.	4	942	377	590	273	160	187	34	20	62.6	72.4
Paints	4	773	888	531	567	83	121	1	38	68.7	63.9
Fertilisers	3	3785	2452	2487	1521	1563	1311	85	488	65.7	62.0
Food Products	4	1346	1283	870	749	154	195	14	66	64.6	58.4
Plantations	9	2884	3751	1527	2137	398	552	49	37	53.0	57.0
Elec. goods	13	3044	4197	1564	2346	731	1008	128	278	51.4	55.9
Aluminium	2	2370	926	1300	505	1434	1445	336	338	54.9	54.5
Engineering	35	14410	19628	6926	9917	5401	5767	2066	2282	48.1	50.5
Other Mfg.	42	15719	14959	7698	7243	3607	4266	1225	1130	49.0	48.1
Cement	6	3152	700	1076	322	876	1123	154	142	34.1	46.0
Chemicals	28	9419	8939	4735	3936	3029	3443	906	1310	50.3	44.0
Rubber Goods	4	2082	1674	856	719	768	717	322	188	41.1	43.0

Contd.....

Table - IV. 12.....(Contd.)

Electricity	15	2588	2490	1111	991	674	728	92	120	42.9	39.8
Sugar	5	419	1178	263	445	314	298	17	40	62.8	37.8
Papers	9	1568	1970	328	720	875	947	316	207	20.3	36.6
Textiles	29	6322	5131	2191	1366	2590	3047	947	1127	34.7	26.6
Man made fibres	12	7044	7866	2558	1919	3729	5055	1592	1668	32.2	24.4
Automobile	5	3206	5074	745	756	2351	2616	760	985	23.2	14.9
Shipping	1	438	599	-	-	327	328	-	315	-	-
Total	220	82411	84082	37355	36432	28860	33154	9044	10779	45.3	43.3

Source : Research Bureau, Econ. Times, Jan. 6, 1982.

tries though the aggregate effective tax incidence*11 borne by 220 companies fell from 45.3 per cent in 1979-80 to 43.3 per cent in 1980-81. Again our study might reveal that the giant companies having greater investment in total assets had taken the more opportunities of tax incentives reflecting the lower rates of tax incidence.

Industrywise classification of tax incidence showed that the tax incidence was lowest for the automobile industry and highest for pharmaceuticals in 1980-81. At the same time the corporate tax incidence for all the industries were below the prevailing tax rates*12 except for fertilisers, paints and pharmaceuticals (Table IV.12). Out of 220 companies, 19 big companies having total assets of more than Rs. 100 crores, showed the lowest rate of tax incidence of 39.6 per cent in 1980-81 (40.3 per cent in 1979-80), while 10 companies having total assets of less than Rs. 5 crores the rate of tax incidence was highest as 57.3 per cent (48.5 per cent in 1979-80). That might reflect the greater effective utilisation of various tax incentives by bigger companies than the smaller companies (Table IV. 13). One might also

---

*11. Ratio of tax provision to profits before tax. For further study of theories of incidence of corporate income tax one might consult Neoclassical Micro Economic Theory of Harberger of 1962, Mclure and Thirsk of 1975, Parthasarathi Shomes of 1978 and of late of Shri Baidyanath Chakravarti in 1980 in his unpublished thesis - 'study of Corporate Income Taxation in India.'

*12. 55% + 7.5% as sur charge, taken together 59.125%.

Table - IV.13

EFFECTIVE TAX INCIDENCE ACCORDING TO SIZE OF COMPANIES

(Rs. lakhs)

Size classifications based on total assets (Rs. crores)	No. of Companies	Profit before tax		Taxation		Tax incidence (as a percentage)	
		1979-80	1980-81	1979-80	1980-81	1979-80	1980-81
1	2	3		4		5	
Less than 5	10	429	342	208	196	48.5	57.3
5.1 - 10	29	2196	2130	974	981	44.4	46.1
10.1 - 25	78	16167	17395	8568	8934	53.0	51.4
25.1 - 50	54	19474	19825	8746	8604	47.3	43.4
50.1 - 75	20	9917	11540	3660	4327	36.9	37.5
75.1 - 100	10	9311	8128	4760	3600	51.1	44.3
More than 100	19	25917	24722	10439	9790	40.3	39.6
Total	220	82411	~~82411~~ 84082	~~84082~~ 37355	36432	45.3	43.3

Source : Research Bureau, Economic Times, Jan 6, 1982.

note that in comparison with the income year 1979-80, the bigger companies having total assets of more than Rs. 10 crores had enjoyed more benefits on tax savings in the year 1980-81. Tax incidence declined for the bigger companies in 1980-81 corresponding to the previous year, while the tax incidence for such companies, whose total assets-size were less than Rs. 10 crores, increased in 1980-81 in comparison with 1979-80. From such an analysis one might come to the decision that there was an uneven utilisation of tax benefits and mainly the bigger companies having Rs. 5 crores of total assets or more had obtained the benefits of various tax incentives.

In case of VOLTAS the major source of tax savings was Export Market Development Allowances under Sec. 35B*13 in the financial years 1975-76, 76-77 and 1978-79. In the year 1977-78, Capital Expenditure on Scientific Research under Sec. 35*14

---

*13 the provision was inserted by the Finance Act, 1968, amended in 1974 - widely held domestic companies are entitled an additional 50% of the export market development expenditure, not being in the nature of capital expenditure or personal expenses, incurred.

*14. 'Expenditure on Scientific Research' for the purpose of allowance in the computation of profits includes all expenditure incurred for the prosecution, or the provision of facilities for the prosecution, of scientific research, but does not include any expenditure incurred in the acquisition of rights in, or arising out of, scientific research. Additional deduction of $33\frac{1}{3}\%$ of allowable expenditure is allowed for deduction w.e.f. the A.Y. 1974-75.

became the major source of tax savings, but in 1979-80 deduction in respect of Royalties etc. received from certain foreign enterprises under Sec. 80-O*15 topped the list, only to be followed by the benefits given under Sec. 35. But it had been noted by the Research Bureau, Economic Times that due to the reliefs under Sec. 72A*16 relating to the amalgamation of sick units, Tata Merlin & Gerrin and National Electrical Industries being amalgamated with Voltas, tax savings had increased by Rs. 104 lakhs and Rs. 198 lakhs in 1978-79 and 1979-80 respectively. Thus the tax savings helped VOLTAS to diminish the effective burden of tax from 52.5 per cent in 1975-76 to 12 per cent in 1979-80. Inspite of sudden rise of 'profits before tax' in 1978-79 tax burden became nil, mostly because of section 72A. Such reliefs along with other sources of tax savings also brought down the tax incidence-rate to 12 per cent in 1979-80 from 14.6 per cent in 1977-78, though the growth of profits before tax was 340 per cent during the same period (Table-IV.14).

In the case of Associated Bearings, Excess Depreciation appeared to be the major source of tax savings during the years 1976-77, 1977-78 and 1980-81 but in the years 1978-79 and 1979-80 Tax Holiday benefits under Sec. 80-J became the major source. Investment Allowance also seemed to be the significant source which

*15. In computation of the toral income of an Indian Company, a deduction of the whole of the income so received or brought into India subject to regulations in foreign exchange dealings.

*16. was inserted by the Finance (No.2) Act, 1977 allowing certain tax advantage to an industrial company, amalgamating with another company in such circumstances where the Government was satisfied as for public interest.

Table-IV.14

TAX SAVINGS : VOLTAS

(Rs. Lakhs)

Items	1975 - 76	1976 - 77	1977 - 78	1978 - 79	1979 - 80
1. Profits before tax.	162	10	123	207	418
2. Tax savings (a)	18	15	72	140@	219@
3. Net tax liability	85	-	18	-	50
4. Tax incidence (3) as a % of (1)	52.5	-	14.6	-	12.0
Major source of tax savings:					
5. Excess/shortfall of depreciation	(7)	4	36	12	(4)
6. Cap. expenditure on Scientific research u/s. 35	10	-	43	4	9
7. Inv. allowance u/s-32A	2	-	14	16	7

Contd.....

Table - IV.14 .....(Contd.)

8. Export market allowances u/s. 35-B	20	22	18	27	5
9. Claims under Sec. 80K- Dividends attributable to profits and gains from new industrial undertakings or ships or hotel business & 80-M- inter-corporate dividends.	6	-	7	-	9
10. Royalties etc. u/s. 80-O	-	-	6	-	10
11. TOTAL	31	26	124	59	36
12. Tax on (11) (at 57.75%, 59.125%)*	18	15	72	35	21

Note : @ includes tax reliefs u/s 72-A.

* The rate of taxation applicable to this company has been increased to 59.125% by the F.A., 1979 effective from the financial year 1978-79, which includes basic rates and surcharge. Tax saving is computed from (11) as given in (12).

Figures in brackets incidate shortfall of depreciation allowed by the I.T. Act over depreciation in books of accounts.

Source : Economic Times, Cal., Jan. 6, 1982.

helped the Associated Bearings Co. to save substantial amount of tax throughout the years. But the benefits under Sec. 80-J, was withdrawn from the financial year 1980-81, and that might be the main reason for considerable increase of tax incidence from 54.2 per cent in 1979-80 to 61.8 per cent in 1980-81. For highly capital intensive companies like ABC, the relief under this single item was substantial. (Table-IV.15)

For highly capital intensive industries, capital consumption allowances, like depreciation and investment allowances are likely to play as the most important items of tax savings. In our case study of TISCO, such hypothesis is to be tested. Investment allowance became the pioneer of tax savings throughout the years from 1976-77 to 1980-81 representing 53.8%, 55.5%, 60%, 56.2% and 50% respectively of the total benefits obtained from major sources. The second major source of tax savings appeared to be the excess depreciation allowance allowed under Income-tax Act over the amount shown in the financial books of accounts. That constituted 38% in 1976-77, 37% in 1977-78, 34.8% in 1978-79, 38.5% in 1979-80 and 40% in 1980-81. Therefore, it could be noted that the capital consumption allowances formed the major sources of tax savings and the two together claimed more than 90 per cent of total savings. While the profits before tax declined from Rs.1805 lakhs in 1976-77 to Rs. 787 lakhs in 1977-78, tax savings rose from Rs.486 lakhs to Rs. 522 lakhs during the same period and that led to

Table - IV.15

TAX SAVINGS : ASSOCIATED BEARINGS.

(Rs. lakhs)

Items	1975 - 76	1976 - 77	1977 - 78	1978 - 79	1979 - 80
1. Profits before tax	274	317	276	620	939
2. Tax Savings (a)	30	51	24	51	38
3. Net tax liability	125	124	139	336	580
4. Tax incidence (3) as a % of (1)	45.6	39.1	50.4	54.2	61.8
Major source of tax sagings:					
5. Excess/shortfall of depreciation.	21	35	14	17	28
6. Investment allowance u/s 32A	20	33	5	30	23
7. Tax holiday u/s 80-J	13	20	23	26	-
8. Total	54	88	42	73	51
9. Tax on (8)	30	51	24	51	38

Note : (a) Computed at the rates applicable in the respective years.

Source : Economic Times, Cal., Jan. 6, 1982

Table-IV.18

TAX SAVINGS : ITC

(Rs. Lakhs)

Items	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81
1. Profits before tax	1206	787	2490	2493	5206
2. Tax savings (a)	426	522	802	702	691
3. Net tax liability	600	10	736	900	2560
4. Tax incidence (3) as a % of (1)	33.2	1.3	29.5	36.1	49.2
Major source of tax savings:					
5. Excess/shortfall of depreciation	336	336	477	434	434
6. Investment allowance u/s 32-A	476	502	847	667	579
7. Inter-corporate dividends u/s 80-M & Dividends attributable to profits and gains from new industrial undertakings etc. u/s. 80-I	72	60	63	84	123
8. Other claims	--	6	2	3	3
9. TOTAL	884	904	1389	1188	1169
10. Tax on (9)	486	522	802	702	691

Note : (a) Computed at the prevailing rates in respective years.

Source: Economic Times, Cal., Jan. 6, 1982.

a lower tax incidence from 33.2 per cent to 1.3 per cent only. Since 1978-79 tax savings seemed to decline from Rs. 802 lakhs in 1978-79 to Rs. 691 lakhs in 1980-81 and profits before tax rose from Rs. 2490 lakhs to Rs. 5206 lakhs, net tax liability increased by Rs. 1825 lakhs. That might be the reasons for increasing rates of tax incidence from 29.5% in 1978-79, 36.1% in 1979-80 to 49.2% in 1980-81 (Table-IV-16).

Thus, the tax incidence would vary from company to company depending on the amount of tax savings made by them. Diversification, modernisation and expansion programmes would likely to help to take the opportunities of various tax benefits leading to tax savings by the corporate bodies. But the magnitude of such savings would depend upon the ingenuity of management regarding skilfull utilisation of benefits given by the Income-tax Act.

4.4. EMPLOYMENT IN CORPORATE SECTOR:

Developing countries in the World have granted a variety of tax incentives to promote investment and output growth in recent years.[10] Such incentives are mostly meant for lowering the cost of capital; lowering the variable cost of production; increasing the amount of after - tax profits and the like. In India most popular benefits are in the nature of capital consumption allowances like depreciation, tax holidays, development rebates

10. Ved. P.Gandhi, Asstt. Chief, Tax Policy Division, IMF Fiscal Affairs Department - 'Tax Incentives to Create Jobs .....', I.M.F. Survey, Feb. 23, 1981 pp. 54-55.

& investment allowances. These tax incentives had not really cured the structural problems underlying the corporate - employment potentialities. It might be seen that the problem of employment-growth was more acute in Private Sector than in case of Public Sector out of total employment created in the Organised Sectors in India for the last few years. To show the growth of employment in the Organised Sectors, the data published by Tata Services Limited have been utilised[11] and a Table Iv.17 has been prepared for analysis. For the same purpose another Table IV.18 has also been prepared quoting the data published by the Centre for Monitoring Indian Economy, Bombay.[12]

From the analysis of the Table IV.17 it might be noted that there was a slight increasing trend in the growth rates of employment in the Public Sector throughout the years but that shown a declining proportion in case of Private Sector during the same period. Public Sector represented 66.9 per cent of total employment in 1976-77, 67.2 per cent in 1977-78, 67.6 per cent in 1978-79 and 68.5 per cent in 1979-80. Simultaneously the share of employment in the Private Sector declined from 33.1 per cent in 1976-77 to 31.5 per cent in 1979-80. The annual growth rates of employment seemed to be 3.8 per cent, 4.1 per cent, 4.2 per cent

---

11. Statistical Outline of India, 1982 - Tata Services Limited, Bombay.

12. Economic Intelligence Service - 'Basic Statistics Relating to the Indian Economy' Vol. 1: All India, August, 1982. Centre for Monitoring Indian Economy, Bombay.

Table - IV.17

Employment in Organised Sectors

(1977 to 1980)

(in millions)

Year ended on March	Public Sector			Private Sector					
	Actual	Annual Growth (%)	% of Total	Actual	Annual Growth (%)	% of Total	Actual	Annual Growth (%)	% of Total
1977	13.88	3.8	66.9	6.87	0.3	33.1	20.75	2.7	100
1978	14.44	4.1	67.2	7.04	2.6	32.8	21.48	3.6	100
1979	15.05	4.2	67.6	7.21	2.3	32.4	22.26	3.6	100
1980	15.69	4.3	68.5	7.23	0.3	31.5	22.92	3.0	100
1981									

Source : Statistical outline of India, 1982.
Tata Service Limited, Bombay.

Table -IV.18

Trends in Employment in the Organised Sector

(1975-76 to 1980-81)

End of March	Lakh Numbers			% share in the total employment.		% increase		
	Public Sector	Private Sector.	Total	Public Sector	Private Sector	Public Sector.	Private Sector.	Total
1976	133.63	68.44	202.07	66	34	3.8	0.6	2.7
1977	138.76	68.67	207.44	67	33	3.8	0.3	2.7
1978	144.41	70.43	214.84	67	33	4.1	2.6	3.6
1979	146.76	72.08	218.84	67	33	1.6	2.3	1.9
1980	150.78	72.37	223.15	68	32	2.7	0.4	2.0
1981	154.80	74.37	229.17	68	32	2.7	2.8	2.7

Source : Basic Statistics Relating to the Indian Economy, August, 1982, Centre for Monitoring Indian Economy, Bombay.

Note : Organised sector covers all the enterprises in the public sector and only the non-agricultural establishments in the private sector employing 10 or more workers.

and 4.3 per cent respectively from the financial year 1976-77 to 1979-80 in case of Public Sector whereas in the Private Sector, the rate of growth at the level of 0.3 per cent in 1976-77 remained the same even after three years in 1979-80. In comparison with 1977-78 and 1978-79, the sudden fall in the growth rates of employment in 1979-80 seemed to be alarming, though the overall growth rates of employment showed also a moderate declining trend in the year 1979-80 after remaining stable for the two preceeding years. Thus, from the analysis it might be inferred that the problem of creation of employment was more acute in case of Private Organised Sector than in Public Organised Sector.

From the analysis of Table IV.18 the same conclusion might be drawn that the private organised sector lags behind the public sector. But some are of opinion that the public sector as a creator of larger employment is entirely due to the service sector where government administration might itself accounts for more than half of the total employment in the public sector.

While the high rates of population growth accompanied by the rapid growth in the supply of the labour force is an important factor in the growing unemployment in India, government policies, including tax policies, are also to blame. Though tax incentives leading to fuller utilisation of plant capacity might create more employment in the corporate bodies in an indirect manner but some are of opinion that the present tax incentive

schemes are more investment oriented and less employment oriented. That hypothesis would be tested by analysing data corresponding to 285 companies, published by ICICI. The companies are relating to 16 industries. A Table IV.19 has been prepared showing the growth rates of investment in gross fixed assets and growth rates of employment in each of the industries in 1980-81 corresponding to 1979-80. Investment per job has also been calculated for the year 1980-81 for each of such industries. The industries have been arranged in a descending order according to the value of investment per job.

From the analysis of Table IV.19 one might find that the aggregate investment in gross fixed assets in 285 limited companies rose by 13.46 per cent whereas the growth rates in employment were below the average level of 2.72 per cent in 1980-81. Growth rates in employment were below the average level of 2.72 per cent in case of industries like Metal Products (Non-ferrous), Sugar, Cement, Food Products and Textiles, whereas the rate of growth of investment in such industries were 4.47, 22.45, 19.50, 17.88 and 17.61 per cent respectively during the same period. Except Metal Products (Non-ferrous) all such industries reflected higher rates of growth in investment in comparison with the all industries' average of 13.44 per cent. Again it might be noted that in case of Power Generation & Distribution and Metal Products (Non-ferrous) there were huge amount of investment per job Rs.1,99, 246 and Rs.1,36, 483 in 1980-81 but the two industries, specially/ Metal Products,

Table - IV.19

GROWTH OF INVESTMENT AND EMPLOYMENT

(285 Companies)

Industries	No. of Cos.	Gross Fixed Assets (Rs. lakhs)		Number of persons Employed		Growth of Investment	Growth of Employment	Investment per Job
		1979-80	1980-81	1979-80	1980-81	%	%	1980-81 (Rs)
Power Genr. & Distribution	3	12,281	13,212	6,372	6,631	7.58	4.06	1,99,246
Metal products (Non-ferrous)	4	14,087	14,717	10,603	10,783	4.47	1.70	1,36,483
Chemicals & Petro-chemicals	55	51,738	59,057	55,827	60,453	14.14	4.54	97,691
Rubber Products	2	2,368	2,604	2,639	2,790	9.96	5.72	93,333
Pulp, Paper and Paper Products	15	18,970	21,065	22,505	23,145	11.04	2.84	91,013
Sugar	11	8,804	10,781	12,416	12,577	22.45	1.29	85,720
Metal Products (Ferrous)	36	71,936	81,568	1,12,277	1,16,070	13.39	3.38	70,275
Misc*	44	48,231	52,864	84,811	88,014	9.60	3.77	60,063
Cement	4	14,309	17,100	28,601	29,019	19.50	1.46	58,927

Contd.....

Table - IV.19 .....(Contd.)

Diversified*1	3	10,314	11,430	21,599	20,630	10,82	(-) 4.49	55,405
Automobiles & Ancilleries	14	10,496	11,900	24,680	26,628	13.37	7.89	44,690
Electrical Equipment.	20	12,646	14,755	31,663	33,022	16.67	4.29	44,682
Glass and Pottery	7	2,206	2,471	5,716	5,940	12.01	3.92	41,599
Machine Manufacturing.	32	14,111	16,627	45,004	46,343	17.83	2.97	35,878
Food Products (Other than Sugar)	5	5,200	6,130	17,257	17,499	17.88	1.40	35,031
Textiles*3	30	25,285	29,738	1,20,097	1,20,944	17.61	0.70	84,588
All Industries	285	3,22,582	3,66,019	6,04,067	6,20,488	13.46	2.72	58.989

Source : Financial Performance of Companies : ICICI (Portfolio 1980 - 81)

*1 Companies manufacturing a diversified range of industrial products.

*2 Printing & publishing, coal mining, cigarattes, jute textiles and woollen textiles.

*3 Spinning and composite mills.

did not achieve much in respect to creation of employment. It might be the fact that some industries were capital intensive and some labour intensive; one industry's shortfall in the growth of employment would likely to be compensated by the other industry by creating more employment, investment in one year might create more employment in the subsequent years but it should be noted that the rate of growth of employment lagged far behind the rate of growth of investment. If tax incentives were helpful to generate more savings and investment in corporate bodies one might conclude that the present tax incentive schemes were helpful for creating more investment in fixed assets rather than in creation of more employment.

Deep concern of our Government on the problem of unemployment had long been felt and was evident from the words : "... there is the problem which is perhaps in one sense the most urgent and crucial, namely, that of unemployment and under-employment, in the urban areas as well as in the country side. The task of employment creation is not just a function of the size of additional investment and, through it, additional production in the agricultural and industrial sectors. Upto a point, it relates to the investment pattern and the pattern of technology that is adopted. A co-ordinated policy, which will harmonise the technological and investment patterns with the estimates of the unemployed in the different sectors, has to be evolved and firmly

pursued."[13] It had been pointed out by Mr. Wanchoo long back in 1971 that "Economic and industrial growth do not automatically increase the employment potential in the same proportion, special measures become necessary to stimulate employment-oriented industries."[14] ... "long-term interests of the country lie in promoting production - oriented employment which would serve the twin purpose of increasing employment and ensuring increase in production."[15] Mr. Wanchoo recollected the observations made at the 53rd session of the International Labour Conference in 1969 at Geneva for correcting the factors which gave rise to excessive capital intensity. He pointed out the measures, as suggested by the Secretary General, U. N. Economic and social Council in his report submitted in 1971, to meet the challenge of excessive unemployment. The report mentioned a variety of fiscal measures including different tax incentive schemes for the purpose. Mr. Wanchoo also quoted the U. N. report on 'Tax Reform Planning' which observed "The incentive policies are not in encouraging the use of capital *per se* but in not differentiating among its various uses and particularly in terms of its effects on employment. A greater effort needs to be made to evolve new tax incentives with a view to enhancing, whereever appropriate, the import of labour - intensive

---

13. Government of India, "Economic Survey", (1970-71), - p.71.
14. Government of India, "Direct Taxes Enquiry Committee's Report', Dec. 1971 p.121.
15. The World Employment Programme - "Report of the Director General to the International Labour Conference, 1969, p. 79.

technology."[16] He recommended tax rebate of 5 to 10 per cent of the tax payable in respect of income derived from a labour - oriented newly set up industrial unit for a number of years.[17] But it might be noted that Government has not formulated any production-cum-employment oriented tax incentive scheme as yet. Although the prevailing tax incentives might create employment to a certain extent in an indirect manner with the help of greater investment in an existing business or industrial units newly set up in backward regions but many are of opinion that there should be clear cut employment policy by the Government where tax benefits along with other fiscal measures should have direct relation with the level of production and intake of employees. But it should be remembered that the value of fiscal concessions should be high enough to compensate the employers for all financial and non-financial disabilities they might face in employing a greater workforce.

The scope of formulating tax policy in isolation to generate additional employment is inherently limited. As suggested by Ved. P. Gandhi,[18] who happened to be the Asstt. Chief. in Fiscal Affairs Department, I.M.F., it could be said that certain

16. Report of the Secretary General - U.N. Economic and Social Council - 1971 para. 190.
17. Direct Taxes Enquiry Committee's Report, 1971 p. 122 para 5.74.
18. I.M.F. Survey, Feb. 23, 1981, pp. 54-55.

minimum conditions should be observed if employment related tax incentives were to succeed:

(a) Government policies, other than tax policy, must not give massive anti-employment signals; (b) exchange rate policy, public expenditure policy, wage policy and labour laws must work in harmony with tax policy, so far as the objective of creation of more employment was concerned; (c) tax policy should have a wider net of absorbing a substantial portion of total unemployed in the country but such wider net of incentives must not become an insurmountable burden to the tax administrative authorities for its smooth execution.

Therefore, it could be said that tax policy would not play a right role to create more employment directly if government's other policies were not congenial. Creation of more employment might be possible in an indirect way if tax incentives would help industrial units to boost up their production by fuller utilisation of plant capacity and establishing new industrial units. But productivity is the reflection of multiple economic and sociological constraints. That might be the reasons for not formulating employment oriented tax incentive schemes by the Government but to allow certain rebates and reliefs for investments and making decentralisation of industrial units probably with the hope

of creating and extending the scope of employment along with other objectives of tax policy.

Therefore, from the study, one might conclude that the taxation itself has got no impact on corporate behaviour, so far as creation of employment is concerned in the corporate sector. If employment-oriented tax incentive schemes are seriously viewed by the Government and the fiscal and other policies as mentioned earlier, are congenial for accepting greater number of working force, indirect impact of taxation on creation of employment might be established.

4.5. COST OF CAPITAL & DEBT/EQUITY RATIO:

The capital or funds may be raised by a company from any one or more of the following sources of finance[19] depending on the nature of requirements and the management policy towards financing of the required project:

1. Trade credit :
(a) Normal credit purchase
(b) Instalment terms.
2. Public Loans/Deposits.
3. Financial Institutions:
(a) Cash credit/Overdraft/Loans
(b) Discounting of Bills.

---

19. Based on: Varanasy S. Murty - 'Management Finance' ed. 2, Vakils, Feffer and Simons Ltd., Bombay, 1978, p. 295.

(c) Term Loans

(d) Issue of Bonds.

4. Preference Share Capital

5. Equity Share Capital

6. Retained Earnings

7. Accumulated amount of depreciation, investment allowance and the like.

Funds raised from each of the above sources have a cost. In certain cases that may be explicit, in others, that may be implicit. 'The cost of capital represents a cut off rate for the allocation of capital to investment projects; in theory, it should be the rate of return on a project that will leave unchanged the market price of the stock. In this sense, the cost of capital is the required rate of return needed to justify the use of capital.'[20] Without going into details we can say that the cost of each of the elements of capital may correspond to the expected rate of return for equity capital; the contracted rate of dividend for preference share capital; the rate of interest charged by the lending agency for loans and borrowings and the rate of return expected by the investors for retained earnings. The weighted average of the respective costs of capital may be regarded as the overall cost of capital.[21] However, it would not be

20. James C. Van Horne - 'Financial Management and Policy' - 3rd edn. 1974. Prentice Hall of India (P) Ltd., New Delhi, p. 101.

21. Ghosh, P. K. & Gupta, G. S. - 'Fundamentals of Management Accounting' 2nd edn. 1979. National Publishing House, New Delhi.

our attempt to compute the cost of capital but to show the probable impact of corporate tax on cost of capital vis-a-vis the Debt/ Equity Ratio of the undertaking. It is said that the cost of debt capital is much cheaper than the cost of other sources of funds, because interest charged is an expense deductible from profits in calculating the corporate tax liability for the year. A portion of the interest payment is borne by the Exchequer. As for example, taking 55% as the tax rate, and the market rate of interest on a long-term debt as 10%, due to the payment of interest as an deductible one for tax purposes, the cost of debt-capital for the company comes to (10% - 5.5%) 4.5% only. Thus two companies having the same type of project, one is entirely financed by loan capital and the other entirely by equity capital, the former company is sure to have comparative advantage in the perspective of taxation, without considering the effect of risk and bankruptcy, perfection in capital market and other factors influencing the mode of financing. The cost of debt-capital may be further reduced if allowance is made for inflation. Supposing that Rs.1000 is borrowed by the company at the beginning of a year, and that the interest @ 10% p.a. is paid at the end of the year and the rate of inflation in real terms is 2% p.a.; the actual cost of debt capital in that case will be 2.5%*17 only.

There might be a great temptation to think that be-

*17 Rs. 1,100 is actually leaving the company, but the Rs. 55 difference would have to be paid anyway as a tax on profits if the amount had not been borrowed; the interest payment is being used as a tax shield. Considering inflation @ 2% on Rs. 1000, real amount of loan-repayment comes to Rs. 1025 (Rs.1,100-55-20) and the real cost of loan happens to be 2.5% only.

cause the net cost of loan capital is comparatively cheaper to equity capital, a firm will try to increase the leverage*18 to a great extent. If, however, a large part of the required finance is obtained from this source, there is every possibility that the lenders will demand a larger interest payment because of the added risks involved for its repayment. In addition to this factor, as the debt-equity ratio rises, shareholders might start wanting higher earning per share because the increase in prior claims makes their share of profits less certain. Naturally unjustified debt-based finance will lower the current share price. In a controlled economy like ours where borrowing is mainly made through government controlled financial institutions who observe norms of Debt/Equity ratio while sanctioning loans, excessive leverage is not allowed for the purpose of debts.

In connection with the effect of corporate tax on cost of capital we may however briefly review the theories developed in foreign countries.

Traditional Approach: According to the traditional school, increased leverage upto a point results in lowering the firm's average cost of capital. Although the stock capitalization market rate*19 may rise as the increased leverage will enhance financial risk, the increase in capitalization rate will

*18. Debt/Equity Ratio.

*19. Ratio of earnings to the market value of shares.

not offset entirely the benefit of using cheaper debt funds on account of tax benefits. However, after a point, the increase in capitalization rate will more than offset the benefits of debt capital. It is assumed in this traditional theory that a moderate amount of debt does not add significantly to the risks attached to holding the equity shares and therefore the company does not have to offer higher returns to its equity shareholders. Beyond a certain level, the average cost of capital to the firm will begin to rise as both the stock holders and debt holders might experience greater risks and both of them may ask for risk premium in their return. The effect of corporate income-tax on cost of capital and debt-equity ratio on the basis of traditional theory can be well explained by means of an hypothetical example:[22]

It was assumed that the hypothetical firm's invested capital remained unchanged but the firm was free to vary the debt-equity ratio by substituting debt for equity funds or vice versa. It was further assumed that the firm's invested capital was Rs.1,000;[*20] the pretax internal rate of return was 20%, and the tax rate was 50%. It was taken that the interest rate and the stock capitalisation rate would vary with the amount of debt, as shown in Table-IV.20 & Fig. IV.20.1.

---

22. Dobrovolsky, Sergei P. - 'The Economics of Corporation Finance'- MaGraw - Hill Book Company, U.S.A., 1971 pp. 147 to 154.

*20 termed as Re. in place of $ in the given example.

Table - IV.20

AVERAGE COST OF CAPITAL

(with corporate income-tax)

Proposals	Book values of (Rs)		D/E Ratio	Interest	Stock Capitalization.	Market value (Rs)	D/E Ratio	Total market value (Rs)	Average cost of Capital	
Alternative	Debt	Equity	(book values) Col.(2)/(3)	Rate (i)	Rate (K)	Equity (Ve) (P-i-t)/K	(market values Col.(2)/(7)	of the firm (Vt) Col.(2)+(7)	Pretax P/Vt.	Post tax (P-I)/Vt
1	2	3	4	5	6	7	8	9	10	11
1	0	1000	0	0	.1	1000	0	1000	.2	.1
2	200	800	.25	.04	.105	914.28	.22	1114.28	.1794	.0933
3	333	667	.5	.045	.11	840.98	.40	1173.98	.1703	.0915
4	500	500	1.0	.05	.12	729.16	.69	1229.16	.1627	.0915
5	600	400	1.5	.065	.14	575.00	1.04	1175.00	.1702	.1017
6	666	333	2.0	.08	.17	431.53	1.54	1097.53	.1822	.1153
7	800	200	4.0	.15	.25	160.00	5.00	960.00	.2083	.1666

Source : Dobrovolsky, Sergei P. - 'The Economics of Corporation Finance' U.S.A., 1971.

Invested capital K = 1,000; internal rate of return before tax r = .2;
profit before tax P = 200; Corporate income tax rate t = .5

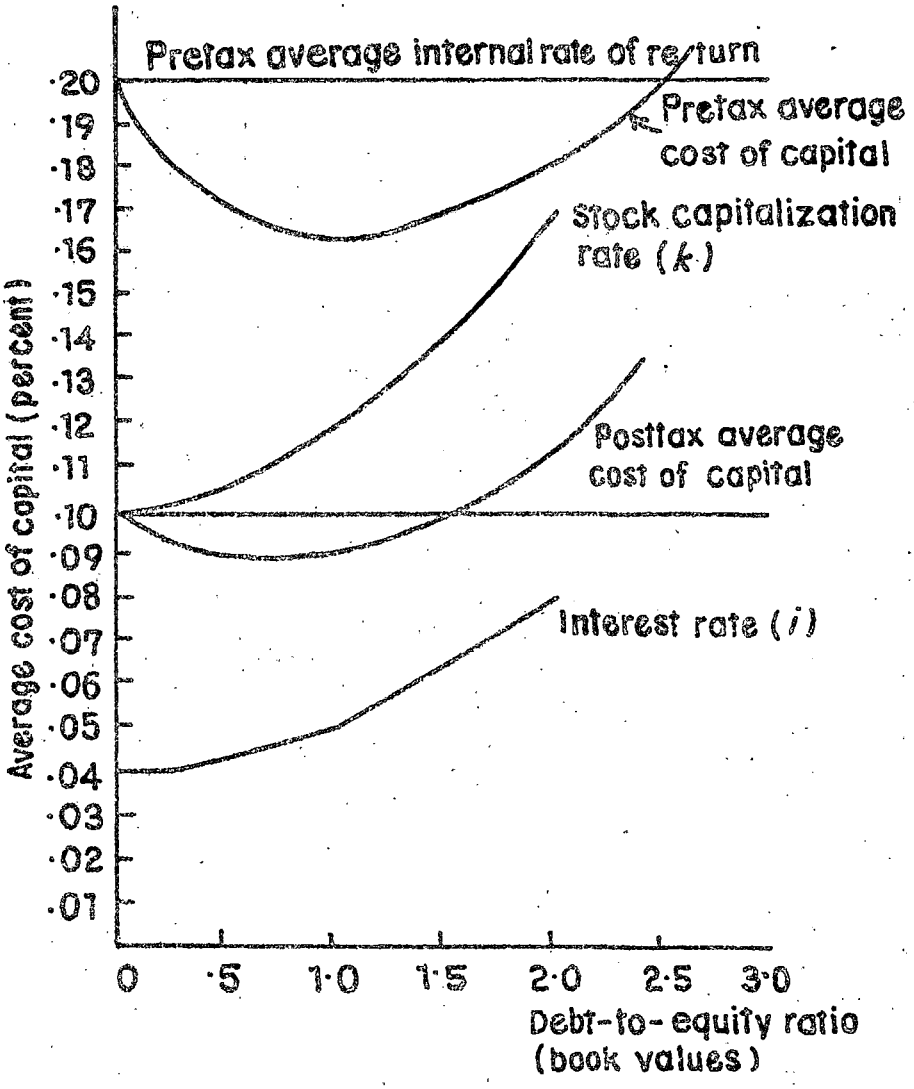

Fig. IV·20·1. The average cost of capital with corporate income tax.

When a tax is in effect, the firm's total disposable profit is divided among the creditors, the government, and the stockholders. The pretax cost of capital is measured by the ratio of total profit to market value of the firm, while the post-tax cost is measured by the ratio of the sum of the creditors' and stockholders' shares of total profit to total market value of the firm. It is to be noted that owing to the tax-exempt status of interest on debt, the amount of tax decreases as the amount of debt is increased. But the total share of profits to the equity shareholders and creditors increases. Under the assumed conditions, average cost of capital, both pre and post tax, is lowest when the book value of debts is Rs. 500. At that point equity shareholders' gain is also maximum, when the market value of equity is Rs. 729.16 corresponding to its book value of Rs. 500. Debt-Equity ratio based on book values is 1.0 and based on market values is 0.69. The maximum value of the firm at market price also lies at that point. Therefore, it can be said under the assumed conditions that by varying D/E ratio in the capital structure the shareholders can gain to a certain extent but the benefit of taxation on debt capital may be offset by risk premium after a certain level of Debt-to Equity.

Modigliani - Miller approach [23] : The academic school led by Franco Modigliani and Merton H. Miller advocate that cost of capital is unaffected by degrees of leverage under certain assumed conditions. The important assumptions might be spelt out as:

1. Perfect capital market where information is readily available to all investors without any cost of information and cost of transaction; investors are rational and will behave accordingly;

2. Firms can be grouped into 'equivalent return' classes having same degree of business risk within a class;

3. Income tax is not levied on corporations.

The MM thesis is attacked mainly on two grounds:

(i) non-existence of perfect capital markets in practice and (ii) unrealistic assumptions as to the absence of corporate income-taxes*.[21]

In the presence of imperfect capital markets, corporate taxes and divergent degrees of risks of individual firms, even within the same class, the MM School's only contribution is raising an academic controversy.

However, in India there is hardly any empirical test

---

23. Modigliani & Miller-"The cost of Capital, corporation Finance and the Theory of Investment". American Economic Review, 48 (June 1958), pp. 261-77.

*21 The assumption was corrected by the authors in 1963 and the thesis recognised that cost of capital can be lowered with leverage due to the introduction of corporate income tax.

Table - IV. 21

CAPITAL RAISED BY CORPORATE SECTOR WITH GOVT. CONSENT

(Rs. Crores)

	Shares	Bonus shares	Debentures	Loans etc.	Total
All Companies					
1976 - 77	114.3	132.7	59.6	27.1	333.7
1977 - 78	98.0	115.6	85.7	19.6	318.9
1978 - 79	106.8	114.5	51.1	7.1	279.5
1979 - 80	76.9	82.7	63.7	10.2	233.5
Govt. Cos.					
1976 - 77	10.8	0.8	30.5	5.1	47.2
1977 - 78	5.4	15.4	35.7	-	56.5
1978 - 79	3.0	26.0	17.8	5.2	52.0
1979 - 80	6.4	-	-	-	6.4
Non-Govt. Cos.					
1976 - 77	103.5	131.9	29.1	22.0	286.5
1977 - 78	92.6	100.3	50.0	19.6	262.5
1978 - 79	103.8	88.5	33.3	1.9	227.5
1979 - 80	70.5	82.7	63.7	10.2	227.1

Source : Statistical Outline of India, 1982 - Tata Services Limited, Bombay.

which will justify or reject either of the two theories. It can be said that expected optimal capital structure of a firm is influenced by corporate income taxes and bankruptcy cost on higher leverage due to risk premium and the D/E ratio of optimal capital level might vary from firm to firm. That is why capital raised by corporate sector (Table - IV.21) does not reflect a systematic debt to equity structure on total capital raised over the years.

4.6. COMPOSITION AND LIQUIDITY & PROFITABILITY:

The purpose of this section is to analyse the trend of liquidity and profitability position in the medium and large public limited companies in the corporate sector in India and their relationship with corporate tax. The analysis is based on the data published by the Reserve Bank of India (Monthly Bulletins) and the classification of companies into industry groups has also been made according to rule followed by the Reserve Bank of India. The analysis is done through selected accounting ratios ~~ratios~~ having wide application in the commercial world.

"Liquidity" refers to a firm's continuous ability to meet its maturing obligations. Since cash is used to meet a firm's obligations, emphasis is given on holding large investment in current assets which include cash and 'near - cash' items like receivables, short-term securities, etc.[24] Thus higher tax obli-

24. Banerjee, Bhabatosh - 'Corporate Liquidity and Profitability in India', Research Bulletin, ICWAI V. 1 No. 2 July 1982 pp. 225-234.

gation might cause in holding of relatively smaller investment in current assets after paying the claims of Government Exchequer and others. The liquidity is measured by two conventional accounting ratios, viz., the current ratio and the acid test ratio. Current ratio expresses the relationship between the current assets and current liabilities.*22 Normally, 2:1 ratio, i.e. current assets are taken as twice of current liabilities, is conventionally taken to represent a satisfactory liquidity position. The idea of double coverage might be to allow any possible loss which may be incurred in the realisation of the assets. Obviously, the portion of the current assets, not covered by current liabilities must be financed out of long-term capital. But higher or smaller ratio should be determined by the circumstances prevailing and the nature of business. In order to make the current ratio more dependable, quick or Acid test ratio is sometimes considered to be more penetrating measure of liquidity. In that case the norm of quick assets to quick liabilities is generally taken as 1:1. Bank borrowing sometimes is excluded from current liabilities and inventories are excluded from current assets because of their time dimension in conversion. In that case, the value of stock is to be financed by long-term capital. Short-term creditors (trade and expense creditors, current taxation, dividends pay-

*22. Cash or those expected to be converted into cash within a year (current assets) and those to be paid off within the same period (current liabilities) (J. Betty, 'Management Accountancy,' Macdonald & Evans Ltd., 3rd Ed., p. 417.)

able, bank overdraft, etc.) should be balanced by debtors (less provision for doubtful debts), cash at bank and any 'near-cash' items (short-term investments) such as deposits or government stock.[25] But this ratio of 1:1 should not be taken as an ideal in all cases. That may vary from industry to industry and even from company to company depending upon many internal and external factors. As inventory constitute the bulk of current Assets in most of the manufacturing units, sometimes inventories are shown as percentage of sales to have an idea of liquidity position of the firms. Mr. G. D. Roy, in his book, A Survey of Accounting Ideas, has pointed out that in order to make the current ratio more dependable and representative, weights may be assigned to individual items of current assets and current liabilities in accordance with their respective degree of liquidity or urgency of repayment.[26] In our study, with the limited scope we have to show if there is any effect of corporate tax on corporate liquidity or not.

The ultimate test of success of any business is its 'earning power', which measures the overall performance of management. This 'earning power' is usually measured as net profit to capital employed in the business (expressed in the form of

---

25. Michael Tennent - 'Practical Liquidity Management - A means to Financial Strength in Companies'. Gower Press - Bowker Publishing Co. Ltd., U.K. 1976, p. 37.

26. Roy, G. D.,-'A Survey of Accounting Ideas', Alpha Publishing Concern, 1963, pp. 454-55.

percentage). Such expression is generally termed as 'profitability'[27]. We shall try to show the relationship between the tax provision as a percentage of profit and return on investment (ROI) before and after tax. Again, generally it is assumed that there is inverse relationship between 'liquidity' and 'profitability' in a business concern as holding of more liquid assets may result in blocking of investible funds in the business and that may ultimately effect the earning power i.e., the 'profitability' position of the enterprise. Tax is imposed on profits of corporate bodies based on financial accounts after certain adjustments. Such accounts are prepared on accrual basis and the profits so determined for tax purposes may not indicate the actual cash flow in the company' disposal. But tax is to be paid in cash and that may result diminution in the working capital of the company which may ultimately affect the 'profitability'. Under Section 208 of I.T. Act, 1961, advance tax[28] shall be payable during the financial year by the company when its total income exclusive of "capital gains"*23 and income referred to in Sec. 2 (24) (ix)*24 exceeds the amount of Rs. 2,500. The amount of advance tax payable by the assessee is to be calculated on the estimated income computed in the manner given under Sec. 209. Subject to the provi-

---

27. Ghosh, P. K. & Gupta, G.S. - 'Fundamentals of Management Accounting', National Publishing House, New Delhi, 1979, p.130.

28. For further details See - Kanga and Palkhivala's - 'The Law and Practice of Income - tax', N. M. Tripathi Pvt. Ltd., Bombay, 7th edn. 1977. Chap. XVII pp. 1030-1099.

*23. Gains arising out of 'transfer' of capital assets u/s 45.

*24. Winning from lotteries, cross-word puzzles, horse races, card games etc.

sions of Secs. 211 and 212, the advance tax is to be paid in three equal instalments in either 15th June, 15th Sept. 15th Dec.(where the previous year ends on or before 31st December) or 15th Sept. 15th Dec., and 15th March. So, whether there is ultimate profit or not, tax is to be paid in advance in cash on estimated income. That outward flow of cash is sure to affect the liquidity of the company. Again, if the advance tax is not paid in time there is a stringent provision given under the Income-tax Act which says - On making the regular assessment where the Income Tax Officer finds that any such person as is referred to in Sec. 212 (3A), has not sent the estimate referred to therein, simple interest @ 12% p.a. from the 1st day of April next following the financial year in which the advance tax was payable in accordance with the said sub-section upto the date of the regular assessment[29] shall be payable by the assessee upon the amount by which the advance tax paid by him falls short of the assessed tax. Thus, actual payment of tax is likely to have a direct bearing on the corporate liquidity and subsequently on its profitability position. Again Gentry[30] hypothesised a relationship between profitability and liquidity as perceived by business managers unlike the frequently assumed nega-

---

29. Ibid. Kanga and Pathkhivala Chap. XIV pp. 814-941.

30. Gentry, James E.,-"Management perceptions of the Working Capital Process" Faculty Working Paper, College of Commerce and Business Administration, University of Illinois, 1976 (quoted from the Article - 'Working Capital Management : A Conceptual Overview' by S. P. Vijaya Saradhi - The Management Accountant, June, 1981, p. 274).

tive relationship. According to him, upto certain level increase in liquidity leads to increase in profitability, beyond that profitability remains constant with the increase in liquidity and thereafter any further attempt to hold more current assets will lead to decline in profitability.

In this perspective, B. Banerjee[31] made a comment that maintenance of a sound liquidity position enhances profits, provided that the established liquidity level harmonises with the nature of the business.

In this section it will be our attempt to find out the relationship between liquidity and profitability in the corporate sector in India and to see if the corporate tax plays any role as such.

In this connection we think, it would not be out of place to high light some of the important short-comings of the technique of ratio analysis, used by us, as a means of caution on overdependence of the decision that may be arrived at on liquidity and profitability vis-a-vis taxation on corporate bodies. In the language of Mr. A. K. Menon[32], to cite a few, large current ratios though superior to smaller ones, can be attained through a method of window dressing, say by liquidating accounts payable

31. Op.cit., Banerjee, B. p. 227.

32. Menon, A. K.-'Liquidity of the Indian Corporate Sector,' Reserve Bank Staff Occassional Papers - V. 2 No. 1 June, 1977, pp. 149-59.

with currently available cash. Again in working capital analysis, a liquidation concept is being applied to a going concern; it may not be appropriate to assume that current assets would be converted into cash for liquidating current liabilities. Similarly, it is implied in the analysis that current liabilities have a preferred claim on current assets in the event of liquidation may not hold good always. Mr. Menon concluded with the remark — this concept can not be unduly relied upon as it amounts to "static analysis of dynamic phenomena."

Inspite of limitations inherent in the technique, 'ratio analysis' is being used largely in business communities and also by different regulatory bodies like Reserve Bank of India, Stock Exchanges, at least for showing the performance - trend and overall standing of the business concerned. This technique is being used in our study to test the hypothesis made earlier.

Ratios of liquidity and debt-equity of 1720 selected medium and large public limited companies have been computed in respect of 25 industries for the first three years and 12 industries as big companies relating to last two years and taken together for 5-years period from 1976-77 to 1980-81. The results are shown in Table IV.22.

It appears from the Table that, current ratio for any industry for any of the years does not come in close proximity with

Table - IV.22

RATIOS OF LIQUIDITY AND DEBT EQUITY OF 1720 SELECTED MEDIUM AND LARGE PUBLIC LIMITED COMPANIES

Industry	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81
1	2	3	4	5	6
1. Tea plantation					
I	63.2	63.4	65.1		
II	1.16	1.20	1.17		
III	25.7	24.5	33.0		
IV	11.0	13.3	18.6		
2. Coffee plantation					
I	62.1	61.7	64.2		
II	1.51	1.46	1.47		
III	42.6	36.1	19.6		
IV	1.4	0.7	0.3		
3. Rubber plantation					
I	54.4	49.2	59.3		
II	1.29	1.26	1.16		
III	26.9	19.9	14.6		
IV	11.0	11.3	10.0		

Contd.....

Table - IV.22 .....(Contd.)

1	2	3	4	5	6
4. Edible vegetable & hydrogenerated oils.					
I	47.3	45.9	54.3		
II	1.28	1.31	1.25		
III	13.8	13.0	13.6		
IV	38.1	27.6	32.0		
5. Sugar					
I	53.2	92.0	@	74.1	41.5
II	1.08	1.02	0.97	1.05	1.17
III	32.1	46.4	67.2	N.A.	N.A.
IV	44.1	42.0	59.8	82.3	77.4
6. Other food products					
I	66.5	55.0	57.2		
II	1.17	1.13	1.28		
III	14.5	17.6	13.7		
IV	18.7	11.1	12.4		

Contd.....

Table - IV.22 .....(Contd.)

1	2	3	4	5	6
7. Tobacco					
I	54.6	53.2	64.6	58.4	54.9
II	1.47	1.38	1.52	1.45	1.35
III	43.1	41.2	41.1	N.A.	N.A.
IV	22.4	23.5	37.5	31.7	32.2
8. Cotton Textiles					
I	@	102.2	33.9	29.1	26.4
II	1.16	1.14	1.15	1.31	1.28
III	26.9	25.8	25.2	N.A.	N.A.
IV	73.5	88.8	84.0	89.2	101.1
9. Jute Textiles					
I	@	@	@		
II	0.89	0.83	0.81		
III	25.9	26.1	32.6		
IV	32.7	91.7	235.7		
10. Silk & Rayon Textiles					
I	63.3	49.6	35.1	38.0	57.5
II	1.76	1.55	1.63	1.75	1.65
III	21.3	23.3	24.8	N.A.	N.A.
IV	24.2	25.8	22.6	17.9	15.4

.....Contd.....

Table - IV.22.....(Contd.)

1	2	3	4	5	6
11. Woollen Textiles					
I	56.8	36.6	30.7		
II	1.32	1.35	1.33		
III	42.1	37.4	35.2		
IV	37.3	47.8	53.7		
12. Breweries & distilleries					
I	61.5	58.3	59.1		
II	1.23	1.33	1.39		
III	27.9	27.9	28.3		
IV	25.9	23.6	25.6		
13. Aluminium					
I	38.6	110.6	58.6	74.5	52.8
II	1.51	1.60	1.66	1.59	1.41
III	29.1	31.2	30.9	N.A.	N.A.
IV	26.6	15.5	12.8	12.6	17.8
14. Other non-ferrous Metals (basic)					
I	58.6	75.4	53.8		
II	1.63	1.65	1.59		
III	32.4	27.5	30.9		
IV	15.0	18.0	18.3		

Contd.....

Table - IV.22 .....(Contd.)

1	2	3	4	5	6
15. Engineering					
I	57.0	57.3	43.7	46.6	44.4
II	1.24	1.26	1.27	1.29	1.30
III	33.2	31.7	31.2	N.A.	N.A.
IV	45.1	48.1	48.9	44.5	49.7
16. Chemicals					
I	54.4	53.0	50.9	48.8	41.2
II	1.24	1.56	1.48	1.52	1.50
III	26.1	25.8	25.6	N.A.	N.A.
IV	36.5	34.5	29.7	30.2	38.0
17. Cement					
I	69.3	51.4	49.5	50.0	21.7
II	1.10	1.22	1.17	1.18	1.10
III	24.3	21.4	23.8	N.A.	N.A.
IV	49.4	43.4	43.8	45.6	75.3
18. Rubber and rubber products.					
I	91.6	49.4	44.0	32.6	34.4
II	1.20	1.24	1.23	1.23	1.21
III	26.6	23.2	22.3	N.A.	N.A.
IV	48.9	44.6	43.6	34.3	35.8

Contd.....

Table - IV.22 .....(Contd.)

1	2	3	4	5	6
19. Paper and Paper products					
I	35.9	50.6	44.5	45.5	39.5
II	1.31	1.21	1.09	1.28	1.22
III	28.5	27.2	25.8	N.A.	N.A.
IV	43.2	44.5	47.4	75.3	90.3
20. Glass and Glassware					
I	240.8	45.2	47.5		
II	1.07	1.07	1.05		
III	36.1	27.0	26.3		
IV	86.4	67.7	51.8		
21. Printing and publishing.					
I	59.3	50.7	46.9		
II	1.20	1.27	1.25		
III	12.9	12.6	12.6		
IV	36.6	39.6	31.3		
22. Electricity generation and Supply.					
I	44.2	49.1	50.4	50.1	31.0
II	1.07	1.12	0.95	0.97	0.90
III	9.4	9.2	10.0	N.A.	N.A.
IV	63.1	65.9	59.6	70.5	109.0

Contd.....

Table - IV.22 .....(Contd.)

1	2	3	4	5	6
23. Industrial and medical gases.					
I	68.7	67.5	52.7		
II	1.16	1.12	1.14		
III	25.8	24.1	24.4		
IV	6.5	8.4	10.5		
24. Trading					
I	60.2	52.6	51.6		
II	1.27	1.25	1.24		
III	14.6	14.4	15.6		
IV	37.3	39.0	31.9		
25. Shipping					
I	26.8	@	@	29.7	10.8
II	0.61	0.47	0.86	0.40	0.50
III	N.A.	N.A.	N.A.	N.A.	N.A.
IV	171.6	195.1	242.7	238.9	167.1

Source : Government of India : Reserve Bank of India Bulletins

Note : @ Denominator is negative

I : Tax provision as percentage of profits before tax.

Contd.....

Contd.....

II. Ratio of current*1 assets to current liabilities*2

*1 inventories, loans and advances and other debtor balances, book values of quoted investments, cash and bank balances, and advance of income tax in excess in tax-provision.

*2 tax provision in excess of advance of income-tax and other current provisions, borrowings from banks other than those against own debentures and other mortagages, "other borrowings" and trade dues and other current liabilities.

III. Inventories as percentage of sales (net of rebates, discounts, excise duty and cess)

IV. Debt*3 as percentage of equity *4

*3 all borrowings from Government and semi-Government, statutory financial corporations and other institutional agencies, borrowings from banks against own debentures and other mortagages, and "other borrowings".

*4 paid up capital (ordinary, preference, deferred) and forfeited shares, plus all reserves.

N.A. Aggregative figures are available, not industry-wise in 1979-80, 1980-81.

the so-called norm of 2:1. The ratio varies from industry to industry and also in different periods. However, such ratio is below the coverage of liability even, in case of sugar industries in 1978-79, for jute textiles and shipping in all the years, for electricity generation and supply for the last three years. Among the industries in the corporate sector, where the amount of current assets have better coverage than current liabilities may be mentioned as Silk & Rayon Textiles, Aluminium, other non-ferrous metals (basic) and chemicals to a certain extent. Does it therefore imply that Indian industries have been operating in a state of liquidity far below the "ideal" one? To answer this question we shall analyse the third ratio, viz., inventories as percentage of sales. A relatively high rate of growth in inventory was found in Tea plantation, coffee plantation, sugar, tobacco, cotton, woollen, and jute textiles, breweries, aluminium, other non-ferrous metals, engineering, chemicals, paper and paper products, glass and glass ware. Such higher share of inventory might lead to lowering of actual liquidity position further in the stated industries. Tax provision as a percentage of profits before tax shows the tax liabilities of the corporate sector in aggregate. Higher the liabilities lesser will be the position of liquidity. The Table reflects higher tax liabilities, above 60%, in case of tea, and coffee plantations; sugar in 1977-78, 1979-80, having no tax liability provision in the year 1978-79, other food products in 1976-77, tobacco in 1978-79, cotton textiles in 1977-78, silk & rayon textiles in 1976-77, aluminium in

1977-78 and 1979-80, other non-ferrous metals in 1977-78, cement in 1976-77, rubber & rubber products in 1976-77, glass & glassware in 1976-77, industrial and medical gases in the years 1976-77 and 1977-78. In most of the cases higher tax provisions accompanied by higher share of inventory leads to diminution in liquidity positions. For sustaining growth of industries, specially in case of sugar, cotton textiles, jute textiles, glass and glassware, electricity generation and supply, and shipping, there seems to increasing dependence on debts than their equity source itself. In those cases debt as percentage of equity increased to a great extent over the period.

Although profitability depends on a host of factors, we shall try to show, if any, the relationship between profitability and tax liability in the corporate sector in industry-groups over the five years period. The ratios have been computed from the data available from the RBI bulletins and are shown in Table IV.23. Increase in tax provision of 60% and above in average has been observed in case of tea, coffee plantations, sugar, other non-ferrous metals, glass and glassware, industrial and medical gases. Such increasing liability of tax provision seems to have got no effect on plantation industries regarding profitability. Inspite of higher tax provisions, the companies in the plantation industries are in a position of higher retention and in most of the cases they have also declared significant percentage of

Table - IV.23

PROFITABILITY RATIO OF 1720 SELECTED MEDIUM AND LARGE PUBLIC LIMITED COMPANIES

Industry	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81
1	2	3	4	5	6
1. Tea plantation					
I	63.2	63.4	65.1		
II	60.5	66.5	23.8		
III	47.1	55.8	22.0		
IV	10.3	13.5	15.6		
2. Coffee plantation					
I	62.1	61.7	64.2		
II	36.4	55.5	57.5		
III	40.3	57.3	59.6		
IV	24.5	25.2	25.2		
3. Rubber plantation					
I	54.4	49.2	50.3		
II	33.3	42.6	41.1		
III	20.4	28.3	32.6		
IV	12.2	12.7	16.8		
4. Edible Vegetable & hydrogenerated oils					
I	47.3	45.9	54.3		
II	71.7	80.2	67.9		
III	52.0	61.0	25.7		
IV	9.4	10.1	7.0		

Contd.....

Table - IV.23.....(Contd.)

1	2	3	4	5	6
5. Sugar					
I	58.2	92.0	○	74.1	41.5
II	62.2	+	○	10.5	77.0
III	35.1	0.9	+	5.6	48.8
IV	3.6	5.8	3.9	5.0	10.8
6. Other food-products					
I	66.5	55.0	57.2		
II	35.7	58.9	60.9		
III	35.5	44.1	45.3		
IV	13.6	13.0	17.4		
7. Tobacco					
I	54.6	53.2	64.6	58.4	54.9
II	34.4	31.3	28.4	33.9	29.7
III	23.3	20.2	17.6	22.0	21.7
IV	15.3	13.9	13.5	14.5	15.3
8. Cotton Textiles					
I	○	102.2	33.9	29.1	26.4
II	○+	○	70.5	68.7	71.3
III	29.4	+	30.1	44.9	53.3
IV	12.0	9.0	11.1	13.6	14.3

Contd.....

Table - IV.23..... (Contd.)

1	2	3	4	5	6
9. Jute Textiles					
I	@	@	@		
II	@+	@	@		
III	27.2	+	+		
IV	10.6	2.0	3.2		
10. Silk & Rayon Textiles					
I	63.3	49.6	35.1	38.0	57.5
II	60.9	44.5	67.4	61.3	29.5
III	46.7	20.7	46.7	46.4	29.0
IV	13.8	11.0	14.1	17.2	20.1
11. Woollen Textiles					
I	56.8	36.6	30.7		
II	69.9	77.7	77.4		
III	28.7	37.0	35.9		
IV	8.4	8.0	7.9		
12. Breweries & distilleries					
I	61.5	58.3	59.1		
II	58.2	63.7	67.9		
III	28.3	26.6	30.1		
IV	10.2	9.4	9.4		

Contd.....

Table - IV.23 .....(Contd.)

1	2	3	4	5	6
13. Aluminium					
I	38.6	110.6	58.6	74.5	52.8
II	53.3	@	0.4	@	@
III	32.0	+	19.7	9.0	11.9
IV	12.9	10.7	19.6	14.6	13.0
14. Other non-ferrous Metals (basic)					
I	58.6	75.4	53.8		
II	70.8	+	47.8		
III	31.6	3.5	19.6		
IV	8.5	8.0	10.0		
15. Engineering					
I	57.0	57.3	48.7	46.6	44.4
II	48.7	44.3	58.2	64.0	66.0
III	31.6	18.2	27.3	37.7	47.2
IV	11.6	9.9	11.1	13.2	15.4
16. Chemicals					
I	54.4	53.0	50.9	48.8	41.2
II	55.1	56.5	55.7	55.8	59.2
III	38.5	32.9	34.7	35.3	39.3
IV	15.2	14.0	14.7	15.4	15.8

Contd.....

Table - IV.23 .....(Contd.)

1	2	3	4	5	6
17. Cement					
I	69.3	51.4	49.5	50.0	21.7
II	+	36.3	40.6	37.9	23.1
III	23.7	21.0	22.4	19.4	13.0
IV	12.8	13.2	13.1	11.8	9.7
18. Rubber and rubber products					
I	91.6	40.4	44.0	32.6	34.4
II	+	+	50.0	67.1	58.7
III	24.6	5.9	13.5	46.3	37.9
IV	16.5	6.4	9.3	15.3	15.6
19. Paper and paper products					
I	35.9	50.6	44.5	45.5	39.5
II	+	29.3	44.4	56.0	58.5
III	23.0	15.8	21.1	31.0	36.0
IV	11.8	10.9	11.3	18.1	14.5
20. Glass and Glassware					
I	240.8	45.2	47.5		
II	+	58.6	58.7		
III	26.3	24.1	26.8		
IV	12.5	9.9	11.0		

Contd.....

Table - IV.23 .....(Contd.)

1	2	3	4	5	6
21. Printing and Publishing.					
I	59.3	50.7	46.9		
II	63.6	70.4	84.0		
III	44.3	26.1	53.6		
IV	9.8	7.3	3.0		
22. Electricity generation and supply.					
I	44.2	49.1	50.4	50.1	31.0
II	65.2	63.7	54.4	62.5	71.9
III	35.7	34.6	27.4	36.6	57.9
IV	11.3	11.5	11.6	12.3	14.7
23. Industrial and medical gas					
I	68.7	67.5	52.7		
II	12.3	2.1	20.2		
III	17.7	15.7	16.4		
IV	15.4	15.3	13.0		
24. Trading					
I	60.2	52.6	51.6		
II	43.0	61.4	54.6		
III	25.4	20.1	24.0		
IV	10.6	7.4	10.6		
25. Shipping					
I	26.8	@	@	291.7	10.8
II	52.2	@	@	@	87.8
III	43.8	+	+	+	101.7
IV	14.8	8.1	0.1	0.9	12.2

Source : Govt. of India : R.B.I. Bulletins - May 1980, Oct. 1981, Nov. 1981.

Contd.....

Note :

@ Denominator is negative

+ Numerator is negative

I. Tax provision as percentage of profits before tax.

II. Profits retained as percentage of profits after tax.

III. Profits after tax less preference dividends as percentage of ordinary paid-up capital.

IV. Ordinary dividends as percentage of Ordinary paid-up capital.

1720 medium and large public limited companies (non-financial, non-Govt.), having paid-up capital of Rs. 5 lakhs or more relating to the years 1976-77 to 1978-79.

426 large public limited companies (non-financial, non-Govt.), having paid-up capital of Rs. 1 crore and above relating to 1979-80 and 433 for 1980-81.

Industry-wise classification is based on R.B.I. Bulletin, Nov. 1981 issue.

dividends to the equity share-holders. But in sugar industries the position is opposite to plantation industries. In this case what we see is the dismal picture in retention of profits as well as in the earning ratio to equity holders except in 1980-81, having higher provisions in tax liability in the year 1980-81, the provision for tax was significantly lower than the previous years and the industry shows higher retention and higher earning ratio. In this case one might conclude that higher tax liability has led to lesser profitability and vice-versa. In case of other non-ferrous metals (basic) also, one can see that inspite of higher tax liability, the companies in aggregate were in a position to distribute more dividends to their shareholders. But it could be noted that higher rates of dividend were possible at the sacrifice of retention of profits in the year 1977-78. So, in this case it would be difficult if not impossible to establish a clear relationship between profitability and tax liability. In case of glass & glass ware, provisions for the years 1977-78, and 1978-79 as tax liability are significantly lesser than the initial year under study. Dividends to equity share-holders is more or less uniform in all the years. Therefore, it could be observed that diminution in tax liability provision might have contributed greater retention of profits in the years 1977-78 and 1978-79 as against 1976-77 where both the numerator and denominator, shown in ratio II in Table IV.23, were negative, probably caused by higher tax provision on profits before tax, shown as ratio/ in I

in the same Table. In case of industrial and medical gases, corporate tax provision diminished but that is not reflected by higher earning ratio of equity share-holders, rather, the equity earnings diminished from 15.4. percent in 1976-77 to 13.0 per cent in 1978-79. But it should be noted that retention of profits has increased to a great extent during the same period. So, we can say that diminishing provision on tax liability might have contributed greater amount of retention though not of earnings to the equity holders in this industry.

The observations made in this section may be mentioned briefly as under:

1. Current ratio of any industry covering 1720 companies for any of the years does not come in close proximity with the so called norm of 2:1;

2. Such current ratio varies from industry to industry and even in the same industry in different years in our study;

3. This ratio does not cover even the amount of current liabilities in case of jute textiles, shipping, electricity generation and supply, and to sugar industries in some of the years;

4. Other industries, like silk & rayon textiles, aluminium, chemicals etc. are at least in a position to meet the current liabilities;

5. The proportion of inventories to sales is significantly high in the industries like plantations, sugar, textiles, aluminium, engineering, chemicals etc. which might have resulted further diminution in the real liquidity position of the industries concerned;

6. Higher tax liabilities is reflected in case of some of the industries but not in all the years;

7. In most of the cases, higher incidence of tax, reflecting tax provision as a proportion to profit before tax, accompanied by larger share of inventories in current assets led to lower liquidity position of the industries;

8. Increase in tax liability seems to have no effect on the profitability of plantation industries; but shows the inverse relationship in case of sugar industries where higher tax liability leads to lower profitability and vice-versa;

9. In case of non-ferrous metals (basic), inspite of higher tax liability, the companies in aggregate under the industry seems to distribute more dividend to their shareholders but a close scrutiny reveals that higher dividend reflects reduction of retention. So, in aggregate, it can be said that in the case of this industry also the observations regarding inverse relationship may be established;

10. No clear relationship between tax liability and pro-

fitability is established in case of companies under other industries like glass and glassware, industrial and medical gases;

4.7. CORPORATE TAX AND SHIFTING OF INCIDENCE:

Incidence of tax deals with the problem of shifting the tax burden. A significant work was done by Harberger in 1962 under certain restrictive assumptions. He argued that in the short-run capital bears the full burden of the tax but in the long-run capital might flow from the corporate sector to the non-corporate sector when the net income of capital decreases due to corporate income tax. In that case he pointed out that the final incidence of tax depends upon three parameters viz., (i) elasticity of substitution between the outputs of corporate and non-corporate sectors, (ii) elasticity of substitution between the factors like capital and labour, and (iii) elasticity of substitution between the factors in the non-corporate sectors. When the price of capital remains constant after the imposition of tax, labour and capital bear the burden of the tax in certain proportion. When the price of capital falls, capital bears a proportionately larger burden of the tax and on the otherhand when capital price increases, labour bears a higher proportion of the tax burden.

Mclure and Thirsk showed in 1975 that Harberger's theory on incidence of tax remained valid even after relaxation of some of the assumptions made by Harberger.

Parthasarathi Shome estimated the incidence of corporate income tax in Inida and showed the shifting effect of the marginal change in an already existing tax burden in the year 1978. Shome's empirical results showed that capital in India bears the burden of incidence more than 95 per cent of the corporate income tax.

Baidyanath Chakraborti, in his unpublished thesis, criticised Mr. Shome's view and argued that his empirical exercise suffered from some deficiencies. In his thesis, submitted in 1980, Mr. Chakrabarti has shown that capital borne less than 50 per cent of the corporate income tax and more than 50 per cent of the tax burden ultimately fell on labour. Moreover, he estimated in his empirical study that the burden of the corporate income-tax on capital had decreased over time. However, it may be noted that there is sharp difference among the economists on the issue of incidence and shifting of corporate income-tax. So we do not like to participate in the controversy because we know that the shifting behaviour depends upon a number of interrelated factors like production technology, capacity utilisation, market nature of the taxed industry, levels of demands of the products produced by the industry and the rate of inflation. It might not be an easy task to isolate the reasons for shifting and to identify the relationship between the tax burden and the shifting, whether forward or backward. This much we can say that so far as shifting is

concerned, it may be of two types, namely, forward shifting and backward shifting. The corporate management would like to shift the tax burden either forward or backward or both, depending upon the circumstances available to him to minimise the burden. In the case of backward shifting, it mostly relates to payment of wages, cost of raw-materials as well as the cost of other major inputs. In the present day India, the cost of labour is generally regulated by various labour enactments and/or bilateral/or trilateral agreements relating to wage payments and there is, therefore, very little scope for backward shifting in labour cost. In the case of major industries, the cost of raw-material is also, more often than not, regulated by government through different agencies. Any large scale shifting might be ruled out in this case too. The cost of other major inputs like electricity and coal in industrial undertakings, is completely under state control in India and therefore do not allow for backward shifting.

So far as forward shifting is concerned, the pricing policy of major industrial products like steel, cement, basic chemicals etc. is generally pursued by the government and the manufacturers have very little to say about the pricing policy. However, conditions permitting, companies may try to shift tax burden to the consumers in the form of higher prices to the extent possible.

The unabsorbed portion of the tax burden which could not be covered by the shifting process may act directly on the dividend policy of the corporate bodies. As the main features of joint-stock companies is the separation of ownership and management, in most of the cases the management would try to follow a constant dividend policy to prove the result of their stewardship before the owners. Thus the major casualty in the case of unabsorbed tax burden would likely to be the quantum of retained profits vis-a-vis profit before tax.

A Table IV.24 has been prepared showing the shifting tendency of tax burden of 417 public limited companies. The Table has been prepared with the help of published data of I.C.I.C.I. in its 'Financial Performance of Companies' : Portfolio 1980-81. These 417 Companies with a total paid-up capital of Rs. 1472.9 crore in 1979-80 accounted for 53.5 per cent of the paid-up capital of non-government public limited companies at work in March 1980.

From the analysis it is found, when there was a tax liability, showing tax provision as a percentage of profits before tax, of 41.3 per cent in 1980-81, retained earnings, shown as profits retained in percentage of profits before tax, was 35.4 per cent. But with the increase in tax liability in the years 1979-80, 1978-79, 1977-78 and 1976-77, as 43.4 per cent, 47.2 per cent, 49.7 per cent and 53.8 per cent respectively, retained earnings gradually decreased over the years as 34.1 per cent, 29.4 per cent,

Table - IV.24.

SHIFTING OF TAX INCIDENCE

(417 Pub. Ltd. Cos.)

	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81
Retained profits as a percentage of profits before tax.	20.4	24.1	29.4	34.1	35.4
Dividends as a percentage of profits before tax.	25.8	26.2	25.4	22.5	22.8
Disposable income as a percentage of profits before tax.	46.2	50.3	54.8	56.6	58.2
Tax provision as a percentage of profits before tax.	53.8	49.7	47.2	43.4	41.8

Disposable income = Profits after tax
= Retained profits + Dividends.

Source : 'Financial Performance of Companies'
ICICI : Portfolio 1980 - 81

24.1 per cent and 20.4 per cent respectively. Stable dividend policy was reflected in the Table.

Therefore, it can be said that the major tax burden would likely to fall on retained earnings.

4.8. SUMMARY:

The first section in this chapter explained the meaning of 'corporate behaviour' and pointed out the plan of work. The other six sections showed the effect of corporate tax on different segments of 'behaviour'.

There are alternative ways of studying the impact of tax incentives on investment, one with the econometric models guided by economic theory and the other by establishing relationship between the corporate profits, before and after tax, and the rate of investment in fixed assets. The later one being accepted in our study. Hypothesis was taken as accumulation of fixed assets varies inversely with the provisions of tax incentives. That was tested by preparing and analysing a number of tables, mainly based on aggregative data of a number of limited companies, supplied in Reserve Bank of India Bulletins and 'Financial Performance of Companies', Industrial Credit and Investment Corporation in India : Portfolio 1980-81. From the studies based on both the sources, it was found that there was a linear relationship between tax incentives and investment in fixed assets and greater tax incentives led

to lower incidence of tax and higher retention of profits, though such incidence was not found to be uniform in all the industries in the corporate sector. International experience on the systems of different tax incentives for capital cost recovery leading to investment in fixed assets was also shown with reference to the selected countries. It was found that United States topped the list of countries with a 11.8 per cent subsidy for non-residential investment followed by the United Kingdom and Italy. In the manufacturing sector, fiscal incentives for investment in fixed assets was in the order of U.S.A., U. K., France, Italy, Netherlands and Federal Republic of Germany. Regarding tax subsidy for different assets in the same country, it was noted that maximum tax subsidy had been granted for the year 1981 for new investment in non-residential buildings in the countries like Belgium, Federal Republic Germany and Japan; for electrical machinery, France; for constructional fixed investment in case of Italy, U.K. and U.S.A. and for producer durables, Netherlands proposed maximum subsidy in Comparison with other assets. That international experience is based on I.M.F. Survey (4.2).

Another section in this Chapter presented estimates of the impact of tax incentives on tax savings with special reference to selected companies in the private sector covering a particular period. It was pointed out that the magnitude of tax savings is dependent on the tax planning capability and the ingen-

uity of the management as to how best the benefits of rebates and reliefs allowed by the Income-Tax Act are availed of. The major sources of tax savings are excess depreciation allowed under the Income-tax Act over the books of accounts; investment allowance; benefits of set-off and carry forward of losses; and other benefits allowed to meet certain specific objectives. Industrywise impact of depreciation and investment allowance have been sorted out and overall tax incidence on the basis of total assets of 220 companies in the private corporate sector was shown. Our hypothesis being taken as the utilisation of tax benefits is evenly distributed to all companies irrespective of size. Hypothesis is tested by preparing and analysing a number of Tables, which are prepared from the published data given in the All India Income Tax Statistics, Government of India, and Research Bureau, Economic Times, Calcutta. The aggregate tax relief of all corporate assessees arising out of different deductions and loss set-off taken together has been calculated as Rs. 26.46 crores, Rs. 27.76 crores, Rs. 36.61 crores, Rs. 23.08 crores and Rs. 42.78 crores, for the years 1975-76 to 1979-80. It had been calculated by the Research Bureau of Economic Times that the aggregate tax savings of the 220 Companies in the private corporate sector was Rs. 114 crores in 1979-80 and that rose to Rs. 133 crores in 1980-81. Tax savings on account of investment allowance including accrued development rebate would alone claim for Rs. 53.47 crores and Rs.63.73 crores for the years 1979-80 and 1980-81 respectively. It

was found from the study that as a result of varying utilisation of tax benefits, incidence of tax was not uniform in all the industries in our study. It has also been revealed in our study that the companies having higher investment in total assets had availed the more opportunities of tax incentives reflecting the lower rates of incidence. Out of 220 companies 19 big companies having total assets of more than Rs. 100 crores, showed the lowest rate of tax incidence. So, it can be said that utilisation of tax benefits is unevenly distributed and bigger companies get more benefits leading to lower effective rates of tax in comparison with the smaller companies. To find out the aggregate amount of tax savings due to various tax incentives with reference to specific companies, we have taken the cases of VOLTAS, ASSOCIATED BEARINGS and TISCO. In case of VOLTAS, the major source of tax savings was Export Market Development Allowances in the financial years 1975-76, 1976-77 and 1978-79; Capital Expenditure on Scientific Research in 1977-78; Royalties from foreign enterprises in 1979-80. Tata Merlin & Gerrin and National Electrical Industries being amalgamated with VOLTAS in 1978-79 and 1979-80 respectively, the Company obtained the reliefs u/s 72A relating to the amalgamation of sick units, which helped VOLTAS to lower the effective burden of tax from 52.5 per cent in 1975-76 to 12 per cent in 1979-80, though the growth of profit before tax during the same period showed a phenomenal increase. So, it can be

said that the benefit of tax savings helped VOLTAS a substantial decrease in effective tax rate. In case of ASSOCIATED BEARINGS (ABC) Depreciation appeared to be the major source of tax savings during the years 1976-77, 1977-78 and 1980-81; Tax Holiday benefits in 1978-79 and 1979-80. Investment Allowance also played a significant role in all the years. For highly capital intensive company like ABC, when the relief under section 80-J being withdrawn in 1980-81, the immediate effect was the increase in the effective rate of tax from 54.2 per cent in 1979-80 to 61.8 per cent in 1980-81. In case of TISCO, Investment Allowance became the pioneering source of tax savings throughout all the years from 1976-77 to 1980-81. The second major source of tax savings during the period appeared to be Depreciation Allowance and the two together claimed more than 90 per cent of total tax savings. While the profits before tax declined from Rs. 1805 lakhs in 1976-77 to Rs. 787 lakhs in 1977-78, tax savings rose from Rs. 486 lakhs to Rs. 522 lakhs during the same period and that led to lowering of tax incidence from 33.2 per cent to only 1.3 per cent in 1977-78. Since 1978-79, tax savings declined from Rs. 802 lakhs in 1978-79 to Rs. 691 lakhs in 1980-81. But at the same time profit before tax rose from Rs. 2490 lakhs to Rs. 5206 lakhs which led to the increase in tax liability by Rs. 1825 lakhs. Increase in profits, decrease in tax savings has resulted increase in tax incidence from 29.5 per cent in 1978-79, 36.1 per cent in 1979-80 to 49.2 per cent in 1980-81. Therefore, the variation in the amount of tax savings, by skilful utilisation of benefits by the

companies caused the variation in the incidence of tax from company to company (4.3).

The next section dealt with tax incentives and employment in the corporate sector. It was seen that the problem of employment-growth was more acute in private sector than public sector. To show the growth of employment in the organised sectors, the data published by Tata Services Limited, Bombay and Centre for Monitoring Indian Economy, Bombay have been analysed by preparing a number of Tables. While the high rate of population growth accompanied by the rapid growth in the supply of labour force is an important factor in the growth of unemployment in India, government policies including taxation policies are also to blame for this. Our present tax incentive schemes are believed to be more investment oriented and less employment oriented. This hypothesis had been tested by analysing data corresponding to 285 companies relating to 16 industries, published by ICICI. From the analysis it was found that the aggregate investment in gross fixed assets of all the companies taken together rose by 13.46 per cent in 1980-81 whereas the employment growth rate was only 2.72 per cent. The industries like Sugar, Cement, Food Products and Textiles showed lesser growth of employment, far below the average even, but reflected higher rates of growth in investment far above the average. Investment per job also differed from industry to industry. It might be the fact that some industries were capital intensive

and some were labour intensive; one industry's shortfall might be compensated by the other; investment in one year might create more employment in subsequent years but it had been noted that the average employment growth rate of all industries lagged far behind the average investment growth rate. As tax incentives were helpful to generate more savings and investment in corporate bodies and fuller utilisation of capacity might create more employment in an indirect manner, it could be conjectured that the present tax incentive schemes are more investment oriented rather than employment oriented. Deep concern was shown in the Economic Survey of the Government of India long back. In the report of the Direct Taxes Enquiry Committee, Mr. Wanchoo, the Chairman of the Committee, warned in the language -- "Economic and industrial growth do not automatically increase the employment potential ..." and suggested that special measures should be taken to stimulate employment oriented industries. He suggested some specific fiscal measures also to combat the challenge of unemployment. But production-cum-employment oriented any tax incentive scheme has not yet been formulated by the Government. It is taken for granted that the scope of formulating tax policy in isolation to generate more employment is inherently limited. If the fiscal and other non-fiscal policies of the Government are congenial to create more employment and if employment-cum-production oriented tax incentive schemes are seriously implemented, the corporate tax might help to create more employment if suitable policy is adopted in this regard. (4.4).

In the next section we tried to find out the impact of corporate tax on cost of capital in the corporate sector. It is said that the cost of debt capital is much cheaper than the cost of other sources of funds. A portion of the interest payment on debts is borne by the Exchequer in the form of allowable deduction from profits in calculating corporate tax liability. Without considering the effect of risk and bankruptcy, perfection in capital market and other factors influencing the mode of financing the cost of debt capital is further reduced by the impact of inflation. It may be thought that because the net cost of loan capital is comparatively cheaper to equity capital, a company will try to increase the 'leverage' to a great extent. It was shown in the 'traditional approach' that the benefit of taxation on debt capital might be offset by risk premium after a certain level of Debt-to-Equity. 'Modigliani-Miller approach' simply led to the academic controversy. However, in India, there is hardly any empirical test which will justify or reject the theories. We have prepared a Table showing the details of capital raised by corporate sector with Government consent for the years from 1976-77 to 1979-80. The published data from Tata Services Limited, Bombay, have been utilised for the purpose. On analysis, the corporate sector does not reflect a systematic debt-to-equity structure on total capital raised over the years. So, it can be said that expected optimal capital structure of a company is influenced not only by corporate income tax but also bankruptcy cost on higher leverage due to risk premium. That

is why, the D/E ratio of optimal capital level might vary from firm to firm (4.5).

The purpose of another section was to analyse the trend of liquidity and profitability position in the medium and large public limited companies in the corporate sector in India and to see if the corporate tax has played any role as such. A number of Tables had been prepared on the basis of the data published by the Reserve Bank of India. Keeping in mind the limitation of ratios as a means of analysis, we had taken recourse of some of the selected accounting ratios for the purpose, having wide application in the commercial world. It appeared from the analysis that current ratio varied from industry to industry and even in different periods in the same industry. Such ratio did not come in close proximity with the so called "norm" of 2:1 of any of the 25 industries in our study. In case of sugar industries in 1978-79, for jute textiles and shipping in all the years from 1976-77 to 1980-81 and for electricity generation and supply for the last three years from 1978-79 to 1980-81, current assets-to-current liabilities' ratios were below the coverage of current liabilities even. In plantation industries, sugar, tobacco, breweries, aluminium, engineering, chemicals, paper and paper products, glass and glassware and cotton, woollen and jute textiles, relatively higher rate of growth of inventory was found. So, in case of such industries the actual liquidity position,

measured by "acid test ratio", seem to be alraming further. It is said that higher tax liability leads to lower liquidity and vice-versa. This hypothesis was tested in the analysis of 1780 non-financial, non-Government medium and large public limited companies during the years from 1976-77 to 1980-81. From the analysis it was found that there were higher tax liabilities in case of industries like tea and coffee plantations for all the years, sugar in 1977-78 and 1979-80, cotton textiles in 1977-78, silk and rayon textiles in 1976-77, aluminium in 1977-78 and 1979-80, ~~silk and rayon textiles in 1976-77, aluminium in 1977-78 and 1979-80,~~ cement in 1976-77 and 1977-78. Almost in all the cases we found the diminishing liquidity of the industries. Again no tax liability provision was found in sugar industries in 1978-79, other food products in 1976-77 and tobacco in 1978-79. In the years liquidity position was seen to be better in such industries. So, it could be said that higher tax liability accompanied by greater share of inventory might lead to lesser liquidity in most of the cases and vice-versa. Although profitability of an undertaking depends on a host of factors, higher tax liability is supposed to effect the business undertaking by diminishing its profitability position. This hypothesis was tested by preparing a Table, showing tax provision as a percentage of profits before tax; profits retained as percentage of profits after tax; profits after tax less preference dividend as percentage of ordinary paid-up capital and ordinary

dividend as percentage of ordinary paid-up capital. 1720 public limited companies' relevant data were utilised, as given in the Reserve Bank of India Bulletins. It was seen that inspite of higher tax provisions, the companies in the plantation industries were in a position of making higher retention of profits and in most of the years in our study, they also declared higher dividend to their equity shareholders. In sugar industry, lower retention of profits as well as the lower earning ratio of equity holders, except in 1980-81, was accompanied by higher tax provisions as tax liability. Again in case of other non-ferrous metals (basic) we found that inspite of higher tax liability, the companies in aggregate were in a position to distribute more dividend to their shareholders; but it was noted that in most of the years higher dividend was made at the sacrifice of retention of profits. In case of all other industries, higher tax liability sometimes accompanied by lower profitability, sometimes higher profitability and sometimes uniform profitability position irrespective of higher or lower tax obligations. So, from the analysis it was not possible for us to find out any clear relationship between tax liability and profitability in the corporate sector. However in case of sugar industries, and non-ferrous metals (basic) only increase in tax liability seemed to have lower profitability and vice-versa (4.6). This relationship has further been studied in terms of shifting of incidence of tax.

The last section of this Chapter dealt with the impact of corporate tax on shifting tendency of corporate bodies of their tax liabilities. A significant work was done by Harberger in this connection in 1962 under certain restrictive assumptions. He pointed out that in the short-run, capital would bear the full burden of the corporate tax but in the long-run capital might flow from the corporate sector to the non-corporate sector when the net income of capital decreased due to the imposition of corporate tax. Labour and capital bears the burden of tax in certain proportions on the basis of fluctuations in the price of capital. Mclure and Thirsk supported the theory, even after relaxation of certain assumptions, in 1975. In 1978, Parthasarathi Shome estimated the incidence of corporate income tax in India. Mr. Shome's empirical result showed that more than 95 per cent of the burden of tax incidence of the corporate income in India borne by capital in the corporate sector. Baidyanath Chakraborti criticised Mr. Shome's view and showed that capital borne less than 50 per cent of the income-tax and asserted that labour borne the major thrust of the corporate burden. Mr. Chakraborti also estimated the diminishing burden of tax incidence on capital in the corporate sector over the years. So, it was seen that there was a sharp difference among the economists on the issue of corporate tax incidence and its shifting. It is known that shifting behaviour depends on a number of interrelated factors and it might not be an easy task to isolate the reasons for shifting and to identity the areas where shifting of tax incidence is made. It could be said that the corporate manage-

ment would like to shift the tax burden, either forward or backward, depending upon the favourable circumstances available to him. In India, the cost of labour is generally regulated by various labour enactments and/or mutual agreements. Hence there is little scope for backward shifting of tax incidence to the labour. In case of major industries in India, cost of most of the rawmaterials are more often than not regulated by the Government, so any large scale shifting might be ruled out in this case too. Cost of certain other inputs like electricity and coal is completely under state control and therefore backward shifting may not be allowed by the Government. In case of forward shifting, as pricing policy of major industial products is pursued by the Government and in most of the cases the manufacturers have got little say about that, they may not be in a position to shift always the tax burden to the consumers in the form of higher prices, though sometimes they may try to shift the burden if conditions permit. Therefore, the main thrust of the tax incidence is likely to fall on the profits before tax on companies, either in the form of lower dividend to the shareholders or diminution in the quantum of retained earnings or both. An analysis was made of 417 public limited companies and it was found that the major tax burden would likely to fall on retained earnings (4.7).