A Critical Analysis on Capital Financing

Abhik Mukhopadhyay
Lecturer in Commerce
Sabang Sajanikanta Mahavidyalaya

Abstract
In this paper, an attempt has been made to present critical comments on the conventional idea of financing capital and the concept of cost of capital to bring out their loopholes. A new concept of financing capital, based on outflow of cash, 'EOR' is introduced. The viability of the new approach is established with empirical data and the results show that the companies in the sample are following a wrong way to finance their capital. Along with it a 'result projection' is made to highlight the extent of adverse effect the firms are facing for being in the wrong track. The paper concludes by pointing out the probable outcomes if companies adopt this model for financing their capital and putting up the present scenario of the trend of investment along with some supporting examples.

Key-words : Capital financing; Cost of Capital; Cash Outflow Based Model; EOR; Equity vs. Debt; Booster; Government Revenue; Profit.

1. Introduction

The capital of a business is financed through numerous sources, which are utilized for the creation of fund required for running a business. These funds are procured subject to some payments of rewards in exchange of using them. The amount of money paid in this respect is named interest or dividend depending upon the nature of the sources. The business always tries to increase the surplus through controlling all kind of costs and that of capital also. Hence, business always opts for those sources of capital, which bears minimum cost in order to generate maximum surplus. In other words, those sources will be preferred to, which will minimize the outflow of funds.

2. Background

For choice of preferable sources of capital the simple and preliminary conventional idea says that when the rate of profit earned is less than the rate of payable interest on 'Debt', the company will suffer loss and equity financing is preferable, as dividend rate can be reduced to avoid loss. On the other hand, when the rate of profit earned is more than the rate of interest paid on 'Debt', the equity may not be preferable. As at this stage, the dividend rate will be higher and will ultimately increase the out flow of funds. But this convention has

certain loopholes like:

- The rate of dividend is shown only as a percentage on the face value of the shares.
- For the estimation of rate of dividend and specially the share premium (which is a direct investment by the investors) it does not consider the 'Reserve and Surplus' (a source of financing ownership capital).
- 'Redemption Reserve', 'Capitalisation of interest', 'Writing off discounts', etc are not considered as well.
- Tax factor is not considered and
- There lies a chance to adjust the dividend pay-out limiting the amount of cash outflow and increasing the capital.

These shortcomings are dealt with by introducing the cost of capital concept. There cost of debt is obtained by a complex formula considering all relevant factors like tax rate, interest rate, face value, issue price and redemption factor i.e. amount of amortization required for redemption purpose [Note 1]; and cost of equity is calculated with the help of market price of the equity shares [Note 2]. But, practically, it is difficult to calculate cost of 'Debt Capital' because in a business 'Debt Capital' is procured from numerous sources at different point of time with differences in their face value, issue price, expiry period and rate of interest. On the other hand, in case of equity capital, the 'reserve and surplus' is incorporated indirectly through considering market price of the share. But in practice, the 'market price' turns out to be a problematic item. We all know that the market price fluctuates very much depending mostly on public sentiment and speculation. Therefore, the market price consists of a factor of subjectivity which will affect the calculated cost of equity to a certain degree.

3. Objectives of the Study

In practice the case studies show that without going through the complex calculations for finding out cost of capital the Indian companies are following the simple and preliminary conventional idea and having a tremendous adverse effect. In this paper we will build up and establish a model namely, 'Effective Outflow Rate' or the 'EOR', based on outflow of cash (all actual, accrued, direct and indirect) for maintaining capital that will not only simplify the calculation of cost of capital and also bring accuracy to the required purpose by replacing subjective items like 'Market Price' with 'Net Asset Value' of the firm, etc. Then we will make case study with some Indian company and with those empirical data we will establish that the companies are following a wrong way to finance their capital. Along with it we will also make a 'result projection' to highlight the extent of adverse effect the firms are facing for

being in the wrong track. Lastly we will conclude the paper after pointing out the probable outcomes if the companies switch over to this model for financing their capital and trend of the present investment scenario.

4. Terminology

Here we will try to analyze different sources of capital and build up the 'EOR' model in order to find out which source will be the most preferable and when. In this process, we cannot compare, between the outflow for maintaining capital of different sources directly because some are paid out of after tax profit and some are out of before tax profit. Therefore, we will make adjustments for the tax factor with all those outflows required for maintaining capital, which are paid out of pre-tax profit. This 'tax adjusted outflow for capital will enable us compare the effective cost of different sources of capital. Here, a point to be noted is that outflows out of after-tax profit require no adjustment for the tax factor. Now for building up EOR, first of all, we will need to redefine as well as abbreviate certain items.

Definitions and Abbreviations Used

1. **Capital Employed:** The entire capital employed in the business at the beginning of a period will be taken as 'Capital Employed'. This is represented by 'C and depending upon the nature and sources it will be broadly divided into two main heads, (a) Debt and (b) Equity Holders' Fund.
2. **Debt:** 'Debt' is defined as redeemable and fixed interest bearing source of financing capital and this interest is paid before any payment of direct tax. This being a contractual payment, it has to be paid irrespective of the amount of profit earned or loss incurred. The providers of 'Debt' are outsiders to the business. Hence, the capital financed through 'Debt' is known as outside liabilities and those are to be repaid in due time. This repayment is termed as redemption. Debentures, Loans (secured and unsecured) and Deposits from different corners, etc, are a few examples of'Debt'. For the purpose of our analysis, depending upon 'fixed interest bearing' and 'redeemable' characteristics, 'Redeemable', 'Cumulative' and 'Non Participating' Preference Shares are also placed in this category. 'D' will denote the ratio of'Debts' to 'Capital Employed' (C). So, the entire 'Debt' is represented by 'CD'.
3. **Equity Holders' Fund:** Equity Holders' Fund is defined as dividend (i.e., variable interest) bearing sources of financing capital and this dividend is paid out of 'after-tax profit'. The providers of this fund are the owners of the business. Hence, the

company does not have to repay the capital financed through 'EHF'. At the time of winding up or liquidation, Equity holders are entitled to the balance of the entire property of the business, available, after meeting all the outside liabilities. Hence, this source is known as the internal source of financing. 'EHF' in the discussion actually means the 'Equity Share Capital' along with all those funds, which actually are owned by the shareholders, such as 'Reserve and Surplus'. In a business, profit is earned through using the capital and therefore, the profit is the property of the owner or the Shareholders of the business. Thus we incorporate 'Net Asset Value' method. The retained profit, represented through 'Reserve and Surplus' head, can be taken as the further investment of the Shareholders, for the coming period, after they take over all their receivables from the business. Preference shares may also be included in this head when those are 'Non-Redeemable', 'Non-Cumulative', and 'Participating' in nature. To evaluate the actual amount of 'EHF', 'Reserve and Surplus' is to be taken into consideration as it is used in the business for the period to earn profit. 'E' will denote the ratio of 'Equity Holders Fund' to 'Capital Employed'. So, 'CE' will represent entire 'EHF'.

4. **Profit:** Total earnings of the business after charging all expenses and depreciation but before charging interest and tax (EBIT), is taken as the profit of the firm. Here, 'p' will denote the profit rate or the ratio of the 'EBIT' to 'Capital Employed'. Therefore, p = (EBIT) / (CE ÷ CD).
5. **Interest:** All payments made for the 'Debt' are altogether taken as interest. The rate of interest or the ratio of 'Interest' to 'Debts' is represented by I. Hence, total interest to be paid is 'CDI'.
6. **Dividend:** Payments to be made for the 'EHF' (including tax thereof) will be considered as 'dividend'. The rate of dividend or the ratio of 'dividend' to ' EHF' is denoted by 'd'. Therefore, 'CEd' will be the entire amount of dividend.
7. **Tax:** Actual payment or created provision for tax is named as tax. Rate of tax or the ratio of 'Tax' to 'Profit before Tax (PBT)' is denoted by 't'. So, total amount of tax will be (PBT)t, where, PBT = EBIT – CDI.

5. The Model

We now will build up our model where 'Capital' (C) consists of 'Debt' (CD) and 'EHF' (CE) and C = CD ÷ CE. Profit earning rate p = EBIT / (CD÷CE) and outflow for interest, adjusted as per previous discussion, will be 'CDF where T is the rate of interest. Outflow for tax will be (Cp – CDI)t, where t is the existing tax rate for the company. From the

remaining profit i.e. Cp – CDI – (Cp – CDI)t, dividend 'CEd' (as defined earlier) will be distributed on 'CE' @ 'd'\ Let, 'A' denote the rate of creation of Redemption Reserve or the ratio of 'Redemption Reserve' to 'Debt ÷ Premium/Discount'. So, amount transferred to the 'Redemption Reserve' will be denoted by 'CDA'.

Therefore, the outflows from the profit 'Cp' will be: -

CDI ÷ (Cp – CDI)t + CEd ÷ CDA.(where I = interest paid ÷ interest accrued ÷ interest capitalised and 'D (Debt)' is net of capitalised interest)

= CDI ÷ Cpt – CDIt ÷ CEd ÷ CDA

= CDI ÷ (CD ÷ CE)pt - CDIt ÷ CEd ÷ CDA (putting C = CD ÷ CE)

= CDI ÷ CDpt ÷ CEpt - CDIt ÷ CEd ÷ CDA

= CDpt ÷ CDI – CDIt ÷ CDA ÷ CEpt ÷ CEd

= [CD {pt ÷I (1 -t) ÷ A }] ÷ [CE { pt ÷ d }]

= [Effective outflow for Debt] ÷[Effective outflow for EHF]

So, for Debt capital 'CD', the 'EOR' is :–

[CD {pt ÷ I (1 -t) ÷ A }I / [CDI] = $\underline{pt \div I(1 - t) \div A}$

And, for Equity capital 'CE', the 'EOR' is: -

[CE {pt ÷ d}] / [CE] = $\underline{pt \div d}$

Comparing the outflows of the two cases, 'pt' being common, we can deduce: -

For, d < I (1 - t) ÷ A ..... Equity Holders Fund or in short Equity Capital is preferable.

For, d = I (1 -t) ÷ A .....A level of indifference arises.

For, d> I (1 -t) ÷ A ..... Debts are preferable.

[The case of p < I is not considered as at that stage payment of interest will lead to drainage of capital. Here 'EHF' is preferable along with the situation where the company incurs loss (p < 0).]

6. Illustration And Deduction

Now, to show the functioning of the expression, we take certain imaginary but reasonable values.

Say, I = 10%, t = 40%, and A = 5%. Therefore:–

I (1-t) ÷ A = 0.10(1 -0.4)÷ 0.05 = 0.11 or 11%

In this case EOR of 'Debt' is 11%. Under such circumstances, if dividend is paid at any rate below or upto 11% on the 'EHF', TACC of the 'EHF' will be less than 11%. So, here 'EHF' will be preferable. A point to be noted here is that this '11%' is on the 'EHF', i.e. the

summation of all the items in this category. So when the percentage of the figure of dividend will be calculated upon only the paid up value of the shares, it will be much higher than 11%. Thus, it can be established that payment of dividend at a higher rate, than the rate of interest on 'Debt', does not always mean that 'EHF' is costly. This result suggest the proposition -

For p < I, the 'EHF' is always preferable as in such case, the excess rate of I over 'p' will drain out capital. Here, for 'EHF', the dividend can be reduced to stop the undesirable and adverse outflow. For the case p > I, the EOR of 'Debt' to be found out. In those cases where EOR of 'Debt' exceeds that of 'EHF' (as in the illustration), 'EHF' will be preferable and not the 'Debt'. Thus, the following proposition can be deduced: ***For financing capital 'EHF' is always preferable except when p> I along with EOR of 'EHF' exceeding that of 'Debt'.***

7. A Case Study

We now proceed to use a case study to obtain actual results from the empirical data. For this purpose we will study the published 'Balance Sheet' of different companies. The main problem faced in this process is to tackle so many heads of accounts used and the lack of transparency in those documents. (How the problems are tackled is discussed in detail in the Note 3).

Observation

A study of 91 companies has been made. Among them it was found that 25 companies are to be set aside since those are either operating without any debt or are exempted of paying tax. Out of 91 companies, 32 are running with a debit balance of profit (loss) while other 13 companies are making profit but their 'p' < I. The cases of the companies running with loss or having p < I, are undisputed. Equity will be preferable at this situation. So for all these 70 cases 'EHF' is preferable to 'Debt'. Out of the remaining 21 companies 18 have their 'p' > I but EOR of 'Debt' > EOR of 'EHF' (Table - 1). So, here also, 'EHF' is preferable to 'Debt'. There remain only 3 cases where it is found that 'p' > T and EOR of 'Debt' < EOR of 'EHF'. So, the case study suggests that for 88 companies out of 91 i.e. for 96.7% companies 'EHF' is preferable to 'Debt'. The most important point to be noted here is, as per the conventional idea for all the 21 companies having p>I, 'Debt' should be preferable, but EOR study suggests that for 18 companies out of those 21, 'EHF' should be preferable.

TABLE – 1

Sl No.	1	2	3	4	5	6
Company	H E G Ltd	L&T Ltd.	Cent. ENKA	Reliance Ind Ltd	Colgate Pal Ltd	Nagarjuna Fert
Year	96-97	96-97	99-2000	97-98	99-2000	96-97
Equity	4031	24849	3001	93190	13599	33137
Rsv & Surp	10060	260929	40759	801249	15775	46960
E H F	14091	285778	43760	894439	29374	80097
Debt	27125	198012	29193	843528	85	106125
Cap. Emp.	41216	483790	72953	1737967	29459	186222
E.B.I.T.	6290	82686	11660	199309	7922	42058
Interest	3142	21129	3985	68941	21	17352
P.B.T.	3148	61557	7675	130368	7901	24706
Tax	1216	20422	2560	44396	2722	8586
Dividend	668	16431	1332	29924	4529	6561
EXP WO.	53	2367	144			
Red. Rsv.	224	5000	1547	6447		385
Others	53					
Net Rsv.	277	5000	1547	6447	0	385
d (% Eqty)			25%		30%	
P	15%	17%	16%	11%	27%	23%
I	12%	12%	14%	8%	25%	16%
t	39%	33%	33%	34%	34%	35%
A	1%	3%	5%	1%	0%	0%
I(1 - t) ÷ A	8%	10%	15%	6%	16%	11%
d (/ Re)	5%	6%	3%	3%	15%	8%
D / E	1.93	0.69	0.67	0.94	0.00	1.32
EPS (/Re)	0.48	1.66	1.70	0.92	0.38	0.49
Mkt Val/Re	3.50	11.50	14.58	9.60	2.16	2.42
d % (Cal)	17%	66%	44%	32%	33%	20%

TABLE – 1 (Contd.)

Sl No.	7	8	9	10	11	12
Company	Tezpore Tea	Forbes Gokak	Balmer Lawrie	Mahindra &. Ltd	Vishwas Stl Ltd.	Apollo tyres
Year	98-99	99-2000	97-98	1996	96-97	99-2000
Equity	228	1245	1629	10179	762	3632
Rsv & Surp	5024	16691	12306	69136	56	28194
EHF	5252	17936	13934	79316	818	31826
Debt	503	8857	25928	37783	1517	32824
Cap. Emp.	5755	26793	39863	117099	2335	64650
E.B.I.T.	801	6521	5607	34038	591	16816
Interest	44	1331	2985	5630	198	5178
P.B.T.	757	5190	2621	28408	393	11638
Tax	238	2079	980	11600	134	4119
Dividend	177	1382	573	4414	0	1927
EXP W.O.					6	
Red. Rsv.				751		1634
Others				54		
Net Rsv.	0	0	0	805	0	1634
d (% Eqty)		100%	30%	45%		
P	14%	24%	14%	29%	25%	26%
I	9%	15%	12%	15%	13%	16%
t	31%	40%	37%	41%	34%	35%
A	0%	0%	0%	2%	0%	5%
I(1 -t)÷A	6%	9%	7%	11%	9%	15%
d (/ Re)	3%	8%	4%	6%	0%	6%
D/E	0.10	0.49	1.86	0.48	1.86	1.03
EPS (/Re)	2.27	2.50	1.01	1.65	0.34	2.07
Mkt Val./Re	22.99	14.40	8.56	7.79	1.07	8.76
d % (Cal)	78%	111%	35%	43%	0%	53%

TABLE – 1 (Contd.)

Sl No.	13	14	15	16	17	AVERAGE
Company	EIH Ltd Oberoi	Godj Prop	Godj Soap	Hindmotor Ltd	Pfizer	ALL COMP
Year	99-2000	98-99	99-2000	97-98	96-97	
Equity	5239	637	5979	10757	1172	12545
Rsv & Surp	91470	2634	22051	16572	5370	85014
E H F	96709	3270	28029	27329	6542	97559
Debt	41419	4323	34256	45192	2084	84633
Cap. Emp.	138128	7593	62286	72521	8626	182192
E.B.I.T.	13801	642	14533	10834	2301	26848
Interest	3157	338	6872	6418	204	8643
P.B.T.	10644	304	7661	4416	2098	18205
Tax	3396	107	2549	1449	720	6310
Dividend	2956	122	1623	1182	387	4364
EXPW.O.				26		519
Red. Rsv.	65			500		1839
Others			335			147
Net Rsv.	65	0	335	500	0	1987
d (% Eqty)						
P	10%	8.5%	23%	15%	27%	15%
I	8%	7.8%	20%	14%	10%	11%
t	32%	35%	33%	33%	34%	35%
A	0%	0%	1%	1%	0%	2%
I(1 - t) ÷ A	5%	5%	14%	11%	6.4%	9%
d (/ Re)	3%	4%	6%	4%	5.9%	4%
D / E	0.43	1.32	1.22	1.65	0.32	0.87
EPS (/Re)	1.38	0.31	0.86	0.28	1.18	0.95
Mkt Val/Re	18.46	5.14	4.69	2.54	5.58	7.78
d % (Cal)	56%	19%	27%	11%	33%	35%

So, the case study suggests that for 88 companies out of 91 i.e. for 96.7% companies 'EHF' is preferable to 'Debt'. ***The most important point to be noted here is, as per the conventional idea for all the 21 companies having p > I, 'Debt' should be preferable, but EOR study suggests that for 18 companies out of those 21 'EHF 'should be preferable.***

Result Projection

The aggregate 'Balance Sheet' of 17 companies out of those 18, having p > I, and EOR of 'EHF' less than that of 'Debt', is obtained (Table - 1). Some of the figures of that aggregate 'Balance Sheet' are: -

CE = EHF = Rs.97559 lakhs, where, Equity is Rs. 12545 lakhs and 'Reserve & Surplus' is Rs.85014 lakhs. Debt or CD is Rs.84633 lakhs. Calculated p = 15%, I = 11%, t = 35%, A = 2% and percentage of dividend calculated on the paid up value of 'Equity' is 35%. Calculated EOR of 'Debt' is 9% while that of 'EHF' is 4%.

In conventional terms, here, cost of 'Equity' will be 35% and cost of 'Debt' will be 11%, which is yet to be analyzed by the tax factor. Hence, 'Debt' will be highly preferable to 'Equity'. But in terms of EOR, EOR of 'Debt' is 9% while that of 'EHF' is 4%. So, 'EHF' should be preferable here. To alleviate this dispute, we will replace 'Debt' by 'EHF', step by step, by four different percentages (25%, 50%, 75% and 100%) in order to observe the changes in the figure of the outflow. In such a situation, if the outflow increases we will conclude that the conventional idea is acceptable and there may be some defects in the EOR concept. But, if the outflow decreases with the replacement of 'Debt' by 'EHF', it will be preferable to replace conventional idea with the EOR concept.

In the following table (for estimation of the change over), the 'Average All Comp' column of 'Table-1 (Contd.)' will be taken as the base. There we will replace the 'Debt' by 'EHF', as mentioned earlier. 'EHF' will replace 'Debt', so, 'Capital Employed' and 'EBIT' will not change. The average rate of T, 'd', 't' and 'A' (obtained from the average col.) will be applied to estimate the amount of 'interest', 'dividend', 'tax' and 'reserve creation' respectively. Then we will calculate the net effective outflow of the company by adding up the values of 'interest', 'dividend', 'tax', and 'redemption reserve' for each case.

Table for Estimation of The Change Over

HEADS (formula for projection)	Avg.of All Companies	% of 'Debts' Converted to 'E H F'			
		25%	50%	75%	100%
1. EHF.	97559	118717	139875	161034	182192
2. Debt	84633	63475	42317	21158	0
3. CapEmp(1+2)	182192	182192	182192	182192	182192
4. E.B.I.T.	26848	26848	26848	26848	26848
5. Interest (2 x I)	8643	6482	4322	2161	0
6. PBT (4 - 5)	18205	20366	22527	24687	26848

7. **Tax** (6 x t)	**6310**	**7059**	**7808**	**8557**	**9306**
8. Dividend (lxd)	4364	5310	6257	7203	8150
9. Exp W.O.	519	389	260	130	0
10. NetRsv. (2xA)	1987	1490	994	497	0
Outflow (5÷7÷8÷9÷10)	**21304**	**20342**	**19380**	**18418**	**17456**
P	**15%**				
I	**11%**				
T	**35%**				
A	**2%**				
I(l-t) ÷ A	**9%**				
d(/Re)	**4%**				
SOURCE	Table - 1	**PROJECTION WITH AVERAGE RATES**			

Findings

The table shows the result that as the source of capital is changed from 'Debt' to 'EHF', the amount of 'tax' increases while 'outflow' decreases. These changes are shown below :–

PARTICULARS	**VALUES**			
'EHF' replacing 'Debts' by	**25%**	**50%**	**75%**	**100%**
INCREASE in payable 'Tax' over existing amount	12%	24%	36%	47%
DECREASE in 'Effective Outflow ' over existing	4.5%	9%	13.5%	18%

The study revels that the total outflow continually decreases as the company changes over gradually from 'Debt' to 'EHF'. So, the concept of EOR is preferable to conventional idea. Also it is evident that, if EOR concept is adopted, the Government will earn more as tax and at the same time it will be beneficial to the corporate sector. Profit of the corporate sector will go up by around 14% [Note 4] and that is the extent to which they are now affected.

8. Probable Outcomes

⊐ *Effect On Investors*

If the proposition is accepted, the mode of investment is sure to change. Nowadays, while investing, common people always enjoy a choice between 'Risk Free Bonds' (Debts) and 'Equities'. But, after the acceptance of the proposition no Corporate Sector will opt for 'Debts'. So, the common people, wanting to invest their money in companies, will have no

choice other than to invest in 'Equities'. The conservative investors, having little interest in investing in 'Equities' will be forced to invest in Government bonds, as the financial institutions are also likely to reduce or even stop issuing 'bonds', 'fixed deposits' etc. This action of the financial institutions will be discussed in the next section.

☐ *Effect On Financial Institutions*

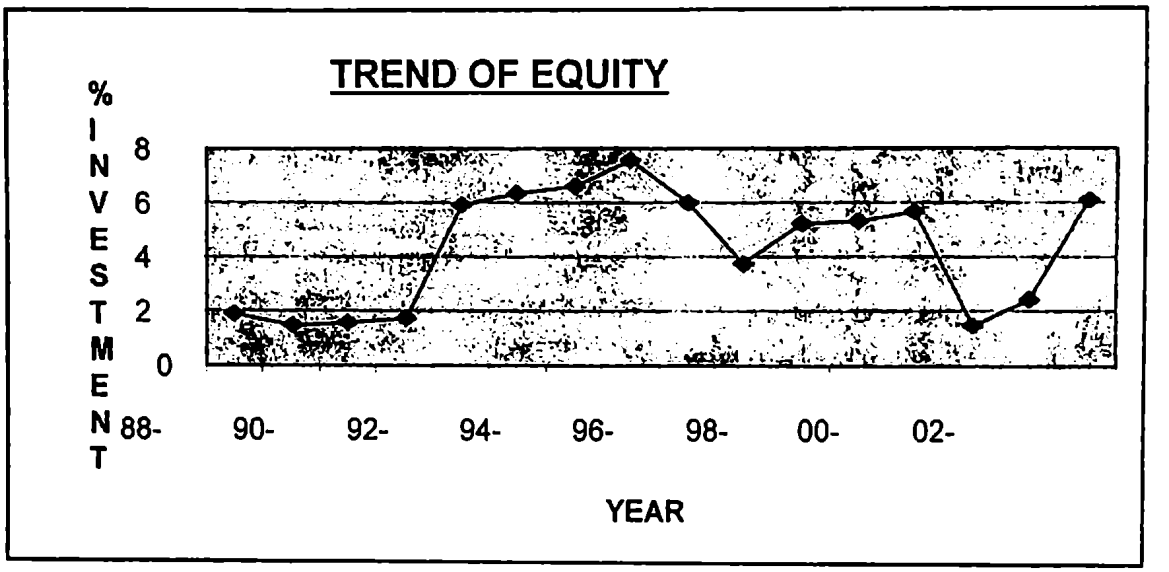
The main objective of the financial institutions is to accumulate fund from the public by providing interest, lend those to the corporate sectors or others at a higher rate and earn profit. But on acceptance of the proposition the corporate sector will stop taking loans. This will lead to a stoppage of the income. So they will be unable to provide interest to the public and their existence will be at a stake if they fail to change their objective. It can be suggested that the motive of the financial institutions should be, charging the customers for providing them service of keeping their funds in safe custody and providing facility in transaction, instead of allowing them interest and if interest to be given invest more in company equity like mutual funds.

☐ *Effect On Government*

If the corporate sector adopts the proposition the 'corporate tax revenue' of the Government will increase considerably. Again for the change of the objective of the financial institutions, as discussed earlier, the entire deposit from conservative investors will go to the Government. This will heavily increase the Government earnings. But side by side the Government will also be affected for there will be a heavy burden of interest payment upon the Government with an increase in the deposit from private sector. This can be avoided through proper utilization of fund and careful structuring of the interest rate.

9. **Present Scenario**

Before concluding it is essential to evaluate the present trend of investments that are taking place because it is recommended by all to make soil—testing before plantation. Among total investments in 'Debt' and 'Equity', percentage of investments in equity was below 20% before 1992-1993 and it got a boost through announcement of the new industrial policy and positive activity of 'SEBI'. From then on it is over 50% mark and reached a high of 75.6% in 1995-1996, with a few exceptions for certain specific causes like Harshad Meheta scam and budget of the Central Government. The trend is depicted by a line diagram below.



Besides this growth in investment towards equity the number of 'extra large capital stocks in the S 5 billion' range have been increased from just 4 in 2001 to 14 in 2004. This implies that there is a positive trend to invest in equity and it is, therefore, the high time for the firms to replace their 'Debt' with 'Equity' as is proposed by the 'EOR' model.

A practical example of a company benefiting from the suggestion to replace 'Debt' with 'Equity' which will surely interest all concerned to adopt 'EOR' model 'Aravind Mills', an Ahmedabad based unit in textile industry was ailing with little market value of its equity shares. For revival it took up debt buyback scheme to reduce its debt by atleast Rs.550 Crores (*The Telegraph, dtd 06.02.2001. page 21*). As a result, on 10.10.2005 market price of its equity share of Rs.10 is Rs.137/8 (*Times Of India, dtd 11.02.2005. page 12*).

Another example is the 'National Electricity Act, 2005' where directives are given not only to reduce debt in power sector from 90% to 70% by issuing equity, but also to replace high interest bearing loans with new low interest bearing loans. The act also provides to charge advance against depreciation so that with the accumulated fund the existing debts can be repaid within 10 years in order to reduce interest burden.

10. Conclusion

'EOR' may be criticized on the ground that for short-term requirement of capital if the business issues equities, after the fulfillment of the objective the firm will face the problems of over capitalization. On the other hand, being in the developing and highly competitive environment, for this excess capital the business will be forced to grow which will be beneficial to all. So the apparent demerit is an indirect merit of the model.

To conclude we can say that adoption of 'EOR' will be benefiting for both the Government and the Corporate Sector. It will have the support of the boost in the trend of the common people to invest in equities and will lead to a huge growth in capital formation of the economy. It may be criticized for increasing the risk factor, both in industry and investment. The simple answer is when the atmosphere is risky the upward and downward movement will balance each other keeping the economy in equilibrium to a satisfactory degree.

END NOTES

Note 1

$$K_d = \frac{[C + 1/n(P - I)](1 - t)}{1/2(P + I)}$$

where, K_d = Cost of Debt Capital

C = Fixed interest charge per annum.

n = Expiry period

P = Face value of Debt

I = Issue price

t = Marginal rate of tax

Note 2

$$K_e = \frac{D}{P} + g$$

Where, K_e = Cost of Equity Capital

D = Dividend per Share

P = Current market price of share

g = Growth rate in earnings

Here, we ignore earnings per share growth model as entire earning per share is not entirely outflow.

Note 3

All the items of the 'Balance Sheet' are categorically analysed and grouped together under different relevant heads as was defined earlier.

To evaluate EHF, 'Reserve & Surplus' is taken as it is found, or should be, in the opening 'Balance Sheet' for the period because it is the fund, which is used in the business for the period to earn profit.

While finding out the 'EOR' of 'Debt', creation of 'Redemption Reserve', 'Capitalisation of Interest', etc, will be considered as a factor. As because, though it is not an outflow for that particular period in which it is created, but actually it is a reserve for future outflow (on maturity of 'Debt') and it will not benefit the business in the long run. Only in case of some companies, the reserve creation is done. And it is done inadequately, in different names, such as Redemption Reserve Fund, Capital Redemption Fund, Sinking Fund, and Reserve for Premium on Debenture Redemption etc. We will show all the funds, where ever is available, as Redemption Fund. For other companies no such figure is available.

For bonds issued at a heavy discount with nominal or zero interest (Deep Discount Bonds) the Bond A/c is credited with the actual amount received and the amount of discount is treated as the interest factor of the Bond. It becomes due along with the received amount on maturity as repayment is done on the basis of the face value. The entire amount of discount is likely to be uniformly divided or apportioned throughout the life period of these bonds. Each part of the apportioned discount is debited to the Profit and Loss A/c and credited (capitalised) to that Bond A/c in each year. This treatment has two effects. Firstly, it increases the amount of 'Debt' and secondly, profit is reduced to that extent to which the 'Debt' is increased. So, to incorporate this phenomenon in the 'EOR' of'Debt', we will adjust the figures of interest and 'Debt'. The capitalised amount of discount or the interest factor will be added together. Simultaneously, the same amount will be subtracted from the 'Debt' (as on the closing Balance Sheet) as it becomes due at the end of the period and it is not used to earn profit throughout the period.

Written off deferred revenue (Debenture etc issue) expenditure is shown as 'Exp W.O.' and it excludes all the items in it other than those related to debts, such as discount on issue, premium on redemption, etc. This item is showed separately from 'Interest' and added with it while calculating I for the purpose of finding out EOR. As because Bonds issued at a nominal discount the amount of discount allowed is capitalised as issue expenses of Debentures, Bonds, etc under the group 'Fictitious Assets' and it is written off against before tax profit on a regular basis throughout a long period. This treatment has the same effect upon profit as that of the interest payment (i.e. Profit & Loss A/c is debited).

All the accrued and capitalised interests are included in 'interest' and 'Debt' are shown as net of the capitalised interests. Being an exceptional case, interest free loans are also excluded from 'Debt'.

The figure of tax is found out by considering the items like 'Provisions for tax', 'Advance payment of tax', 'Rates and Taxes' and 'Direct Taxes Paid' and also consulting the existing 'Corporate Tax Rate' for the year. The adjustment for the difference between depreciation charged as per accounting policies and depreciation allowable as per 'Income Tax Act' is also considered here. All these had to be done because in no case the figure of provision for tax as shown in the Profit & Loss A/c is acceptable and adequate as per the existing tax rate for that year.

The 'PBT' in the Profit &Loss A/c, only includes the 'Provision For Tax' as shown in the Profit & Loss A/c as the 'Tax' while it excludes or is net of all other payments and adjustments for the tax purpose. So we will take 'PBT' as (PBT) - (Excess depreciation allowed by I.T.Act over accounting policies) - (profit on revaluation of assets) - (Provisions for tax as shown in the Profit & Loss A/c) + (Actual figure of tax charged). The adjustment for the revaluation for assets and excess depreciation became essential, because the normal practice of the companies is to use such adjustments to inflate their profit.

Note 4

Increase in profit

= (Increase in EBIT i.e. Decrease in outflow/Existing EBIT) x 100

= [(existing outflow x 18%) / Existing EBIT] x 100

= [{(21304 x 18)/100}/26848] x 100

= 14.28308%