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Retained Earnings and their Role in the Growth of the Corporate Private Sector in India

The objective of this paper is to portray the universally acknow-
ledged merits of retained earnings as a significant prop to corporate
industrial growth, to analyse this role in the context of the Indian corpo-
rate private sector by making time and industry comparisons, and to
uncover the basic variables which influence corporate income retentions as
an explanation of the varying levels of retained profits through a multiple
regression analysis of the aggregate data over a period of sixteen years.

I. Importance

A measure reflecting the extent to which the corporate saving poten-
tial has been harnessed is furnished by the levels of retained earnings.
Although characterised by inter-firm and inter-industry variations, growth
companies with escalating product demand have tended to deploy this
dependable method for the financing of their modernisation and expansion
programmes. Self generated funds, if available in profundity, trim down
the otherwise huge demand for external finance to minimum magnitudes.
Over and above this, the cost of retained profits is relatively low, espe-
cially "when investment opportunities are open to the company in excess
of the shareholders' yield requirements."[1] In recent years the bracing
impact of corporate income retentions upon stock prices has also been
extensively debated and attempts have been made to reconcile the apparent
conflict of views between the 'fiscal theorists' and the 'security analysts'—
the former maintaining that there is a positive association between earn-

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1. It may be noted that retained earnings do involve a cost which may be defined
   as an 'opportunity cost' representing the return (net of tax) which the shareholders
   might get by employing these funds, released through distribution, in alternative
   investments. cf Merrett & Sykes, "The Finance and Analysis of Capital Projects"
   (Longmans, 1963) pp. 79—81.

ings retention and market price of common stock, while the latter stressing, in contra-distinction, the over-riding influence of a high pay-out on stock prices. In fact, empirical analysis has demonstrated that earnings retention exerts a considerable influence on market prices of common stock over the *long run* although dividend pay-out may have the *immediate* impact.[2] It would, therefore, appear that retained earnings may bring about a relatively painless low-cost financing of asset growth and may add to and accelerate the equity of the common stockholders, particularly in growth companies.

II.   Corporate Private Sector in India and the Retention of Profits

A.   *Temporal Analysis.*

In view of the self-evident importance of savings in a developing economy, it may be pertinent to analyse the growth and contribution of retained earnings and also to focus attention on the shifts in the pattern and magnitude of this source of finance over the first fifteen years of planning in India. The following table shows the growth of retained profits of 1333 companies over this period :

TABLE 1[3]

Retained Profits, 1951-52 to 1965-66
(1333, Large and Medium Public Ltd. Cos.)

Years		Retained Profits (Rs. lakhs)		Percentage of Profit after Tax		Percentage of Net Worth
1951-52	...	24,56	...	47·6	...	4·6
1952-53	...	6,57	...	21·2	...	1·2
1953-54	...	12,54	...	32·5	...	2·2
1954-55	...	16,58	...	34·0	...	2·8
1955-56	...	27,97	...	41·1	...	3·7

2.   See : Harkavy, Oscar, "The Relation between Retained Earnings and Common Stock Prices etc."—
Journal of Finance Vol. VIII, No. 3 (Sept. 1953), pp 283—297.
Also see : Walter, James E., "Dividend policies and Common Stock prices " The Journal of Finance, March 1956 A very illuminating discussion on the subject may be found in Friend and Puckett's "Dividends and Stock Prices"— American Economic Review, Vol. LIV (Sept., 1964), pp. 656—82.

3.   The table has been compiled from :
(a) Financial Statistics of Joint Stock Companies in India, 1950-51—1962-63, Statement 4·1 pp. 102-120. For the years 1955-56 and 1960-61 data based on the larger sample have been used.
(b) RBI Bulletin, Dec. 1967. Table 2 p. 1533 for figures in respect of the year 1960-61 onwards.
(c) The last two columns have been calculated.

1956-57	...	29,80	...	41·1	...	3·6
1957-58	...	16,09	...	28·3	...	1·8
1958-59	...	18,84	...	27·7	...	2·0
1959-60	...	39,16	...	37·8	...	4·0
1960-61	...	53,36	...	40·0	...	4·4
1961-62	...	47,79	...	36·4	...	3·6
1962-63	...	41,19	...	33·8	...	2·9
1963-64	...	55,02	...	38·8	...	3·7
1964-65	...	57,03	...	38·5	...	3·6
1965-66	...	52,21	...	35·9	...	3·1

A careful perusal of the above table reveals the following facts pertaining to the growth and pattern of retained profits of the 1333[4] selected public Ltd. companies :—

1. The over-all growth of retained profits during the entire fifteen-year period was about 212·6%.

2. Although the year-wise fluctuations were rather erratic, a period-wise over-view reflects a continual ascendancy of the volume of income retentions.

3. The second year of each plan period was a year of 'low retained profits', the second year of the first plan recording the unusually heavy decline while the shrinkage during the second year of the third plan being only moderate.

4. The close of each period was crowned by the climax except the 3rd plan period when the zenith of the period, also being the peak of the entire 15-year period, was reached a year before the close.

5. During the first-plan period retained profits grew by about 14%. The second plan period appears to have been most salubrious for their growth, recording a percentage improvement of about 79. During the third plan period although the growth was further carried, it was smaller in terms of percentage rise and was placed at about 9 only.

6. The year 1952-53 recorded the lowest level of the first-plan period as well as of the whole of the fifteen-year period. The important depressants in this year were tea plantations (Rs. 135 lakhs) Vegetable & Hydrogenated oils (Rs. 23 lakhs), Cotton textiles (Rs. 210 lakhs), Jute textiles (Rs. 121 lakhs), Silk, rayon and woollen textiles (Rs 39 lakhs), Ferrous/Non-ferrous metal products (Rs. 13 lakhs), and chemical products (Rs. 26 lakhs). A substantial step-up of the tax liability and the efforts

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4. In terms of paid-up capital these 1333 companies represent about 80% of the corporate private sector comprising all the large and medium public Ltd. Companies.

to maintain stable dividends, albeit losses (for example tea plantations and the vegetable oil industry) appeared to be the important reasons for this 'abysmal low' of retained earnings during the year 1952-53.

7. The proportion of net earning retained varied from year to year, the first two years of the first plan recording the highest and the lowest respectively of the entire period under study. Each of the three plan periods closed at a proportion lower than at the commencement, but the absolute magnitude in each case was higher at close than at the inception of the period. This reflects a relatively greater rise in net earnings at the two points of each of the periods studied.

B. *INDUSTRY WISE–Analysis*

The foregoing analysis pinpoints the fact that retained profits have grown over a long period and that this secular growth pattern has accommodated within it the year-wise arratic movements. On an industry-group basis, retained profits reflect a variegated significance although the temporal growth is, in most cases, maintained here as well. The following table depicts the role of retained profits in industry groups :

TABLE 2[5]

Retained Profits, Industry-Group-Wise

(1951-52 to 1965-66)

(Rs. lakhs)

| Industry Group | 1951-52 | 52-53 | 53-54 | 54-55 | 55-56 | 56-57 | 57-58 | 58-59 |
	1959-60	60-61	61-62	62-63	63-64	64-65	65-66	
1. Agriculture and	87	—115	313	428	–20	151	–26	29
allied activities	146	114	17	9	47	66	55	
2. Mining &	41	87	40	39	58	–9	48	62
Quarrying	53	67	5	101	122	42	78	
3. Processing &	1203	–260	203	135	857	598	–583	–250
Manufacture I	1175	2474	2043	997	1232	1305	195	
4. ,, II	477	407	357	700	1248	1193	1052	1205
	1717	1961	1915	2388	3186	3365	3420	
5. ,, III	267	275	217	227	560	675	476	530
	633	599	646	325	439	402	744	
6. Other Industries	381	263	124	129	194	372	442	308
	192	70	154	299	475	506	731	

5. Sources : Financial Statistics of Jt. Stock Companies 1950-51 to 1962-63, Statement 4.1 pp. 102-120 and RBIs Bulletin, Dec.1967.Statement I pp.1564-1584. Figures for 1955-56 and 1960-61 are based on data with a larger coverage of number of companies.

Agriculture and allied activities—Covering tea, coffee and rubber plantations this industry group started its retained profits career quite well, plunged into the 'dismal year' soon thereafter, rose to the zenith in the two successive years following and then decayed for most part of the period except brief spells of resilience in 1959-60 and 1960-61. In 1965-66 retained profits *declined* by about 37% as compared with the opening year of the period and by more than 87% as compared with the peak-year of the period. However, despite a sliding decadence of retained profits, net dissavings were not a very frequent phenomenon.

Mining and Quarrying : Starting with a lower level of retained profits than agriculture and allied activities, this industry-group registered an over-all growth of about 90% although like the former, the close of the period was not the peak of the period. For agriculture and allied activities, the first plan period while for mining and quarrying the third-plan period furnished the peak-points of earnings retention.

Processing and Manufacturing (First sub-group) : Comprising food-stuffs, textiles, leather and products thereof, this group of manufacturing industries also started with an impressive level of retained profits, the grievous year 1952-53 provided a great set-back from which the group recovered but once again plunged into the dark depths of huge net dissavings. An impressive recovery was displayed from the year 1960-61 onwards, (the peak-point being furnished by the last year of the second plan) but the growth could not be maintained. The group recorded an overall decline of about 84% at close as compared with the opening year and a decline of about 92% as compared with the peak of the period.

Processing and Manufacturing (Second sub-group) : Consisting of iron and steel, aluminium, engineering, chemicals, metals and matches etc., the group represents the *growth industries*. The record of retained profits has been the best for this group both in absolute and relative terms throughout the period studied. The phenomenal increase from Rs. 4·77 crores in 1951-52 to Rs. 34·20 crores measures a percentage rise of 617. The trend for the group has been a steady and continuous growth over the period with *no net dissavings at all*. Further, retrograde declines are not quite noticeable in the case of this group of industries. The growth trend is very well set at the close of the period which is also the peak-point of earnings retention·

Processing and Manufacturing (Third sub-group) : Including cement, paper and paper products, rubber and rubber products, mineral oils, construction, electricity generation and supply etc., this group also reflects,

in part, a growth element. Retained profits have played quite a satis-
factory role in this industry group. Although a steady growth through
successive years has not taken place, net dissavings have not been reported
by the group even on a single occasion. During the first decade, the year
1956-57 provided a contrastingly favourable period for retention. The
peak point was reached in the last year of the third plan period after
wearily traversing the erratic movements of the intermediate years. The
overall growth during the period was about 180%.

Other Industries : Incorporating trading, shipping, hotel and other
miscellaneous companies, this group has given a satisfactory account. The
major contribution comes here from the trading companies. Each of the
first two plan periods presents a tapering retention level but the trend has
been reversed for the third-plan period which registers a steady growth and
finally culminates in the peak-point. An overall growth of 92% has been
recorded by the group.

C. Statistical Analysis :

Data on retained profits indicate that the levels of such profits vary
over a period and in respect of different industries. This leads us to the
question : what causes variations in the magnitude of income retentions
by corporate entities ? In other words, what are the principal determi-
nants of the volume of self-generated funds ? An attempt is made in this
section to answer this question in the context of the Indian corporate
sector employing the Reserve Bank sample of 1333 large and medium
public limited companies for a period of 16 years.

Net profits allocation has two rival claims on it viz., dividends and
earnings retention. Since the proportions of net profits allocated over
dividends and earnings retention add up to the final pool of net earnings,
earnings retention may be viewed as the obverse of dividend payout. This
perhaps underlines the conflict between dividend payout and earnings
retention and serves to demarcate an important variable influencing corpo-
rate income retention decisions. It would thus appear that retained profits
depend for their various levels on :

1. Net earnings after tax or profitability, and

2. Dividend payout decisions.

Empirical studies have established association between these variables
to show if earnings retention is a goal worth pursuing from the stand-
points of optimizing the value of the firm's common stock, preserving or
increasing the stockholders' capital, or preparing the capital structure for

future financing[6]. The extent of association between net profits after tax, dividends and retained earnings may be explored with the help of a partial regression equation and other associated measures. The three variables have been arrayed below for a period of 16 years, taking retained earnings (X_1) as the dependent variable and profits after tax (X_2) and dividends (X_3) as the two independent variables :

TABLE 3

Showing Retained Profits, Profits After Tax and Dividends
(1950-51 to 1965-66)

X_2	X_3	X_1
38·5	23·7	14·8
51·6	27·0	24·6
31·1	24·5	6·6
38·6	26·1	12·5
45·8	29·2	16·6
68·1	39·2	28·0
72·5	42·7	29·8
56·9	42·8	16·1
68·0	47·2	18·8
103·7	64·6	39·2
133·6	80·3	53.4
131·2	83·4	47·8
121·9	80·8	41·2
142·0	87·0	55·0
148·3	91·2	57·0
145·6	93·4	52·2

6. Debrovolsky, Sergei P., "Corporate Income Retention 1915-43" (New York, National Bureau of Econ. Research 1951) pp 13-26; Gordon, Myron J., "The Optimum Dividend Rate", proceedings of the Sixth Annual International Meeting of the Institute of Management Sciences, Paris, Sept. 1959 pp. 92-10 6; Solomon, Ezra, The theory of Financial Management(NewYork, Columbia University,1963) p 60; Gordon Myron J., and Shapiro, Etc., "Capital Equipment Analysis; The Required Rate of Profit," Management Science, III (October 1956) pp. 102-110; Miller, Merton H., and Modigliani Franco, "Dividend Policy, Growth, and the Valuation of Shares." Journal of Business, XXXIV (October 1961) pp 411-433; Also reference under (2) ante.

The following computations have been made from the foregoing data :

1. *Partial Regression Equation of X_1 (Retained Profits) on X_2 (Profits after tax) and X_3 (dividends) :* $X_1 = 23.8 + .97844\ X_2 - 10.1725\ X_3$.
2. *Standard Error of Estimate :* 10.99.
3. *Coefficient of Multiple Correlation :* ·998.
4. *Coefficient of Multiple Determination :* .996.

Interpretation of Results : The coefficient of Multiple Determination reveals that profits after tax and dividends are the two most important variables influencing the changing levels of retained profits. The unexplained variance amounts to only (1—.996) .004.

A very high magnitude of the coefficient of Multiple correlation reflects that association between the three variables selected for study is of a very high order. Independent sets of coefficients of correlation between pairs of these variables (i. e., r between X_1 and $X_2 = .9414$, r between X_1 and $X_3 = .9583$) confirm this degree of correlation.

Sometimes, it is preferred to work out a correlation between net profits after tax and retained profits and dividends and retained profits after reducing them to a common denominator viz., Net worth. The reason adduced is that the investor is interested in a rate of return and that income retention decisions are inspired more by the rate of return on capital than on the rupee amounts earned.[7] Although this may introduce a spurious correlation, results have been worked out on the basis of this presumption as well and they also indicate a substantial correlation between the two sets of paired variables. The correlations are :

1. *r between profits after tax as a % of Net worth and Retained profits as a percentage of Net worth :* .7420.

2. *r between Dividends as a % of Net worth and Retained profits as a percentage of Net worth :* .6331.

The straight line partial regression equation with a Standard Error of only 10.99 indicates a reliable functional relationship between retained profits on the one hand and dividends and profits after tax on the other. They give reliability to estimates of retained profits on the basis of the net regression coefficients (.97844 and—10.1725) computed in the equation. The results indicate that for every rupee change in net profits after tax retained profits are likely to increase by .97844 if the dividend variable is held constant, and similarly retained profits are likely to fall by 10.1725 for every one rupee change in dividends. This last confirms

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7. Cf. Dobrovolsky, op. Cit., P. 20

that retained profits have been the obverse of dividends at least in the Indian conditions.

III. Conclusions And Findings :

The following conclusions emerge from the above study :

1. Earnings retention has been a growing phenomenon in Indian industry over the decade and a half studied. Mounting tax burden (cutting into net profits after tax) and a pronounced bias for dividends notwithstanding deficits have been responsible for staggering diminutions in the levels of retained profits.

2. Growth industries have presented a performance par excellance. In keeping with the objectives of developmental planning and the imperative need to augment capital formation these industries have tapped their saving potential to the utmost. As against this, traditional and consumer goods industries have, for the most part, suffered from the chronic malady of net dissavings and stinted profitability. Agriculture-oriented industries have attempted to seize a mid-way position between the two extremes of growth industries and traditional industries.

3. Retained profits have mostly been influenced and determined by profitability (net profits after tax) and dividends. A strong significant correlation has been found between the two sets of variables. Retained profits have been found to be a direct function of net profits after tax and dividends. This functional relationship explains, for the most part, the variations in the levels of retained profits both temporally and on an industry-basis. Further, the straight-line relationship may be relied upon to project estimates of retained profits for any given values of net profits after tax and dividends within a narrow range of deviations provided by the standard error of estimate.

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