CHAPTER V
Presentation and discussion in the preceding chapters have provided enough perspectives on the various themes of the study including the concept and precept of capital and capital structure, analysis of capital structure including its taxonomical aspect. However, discussion in the study emanates primarily from the analysis of capital structure of SAIL and TISCO. In fact, the analysis of the capital structure of SAIL from the viewpoint of a hypothetical optimal capital structure and a search for pragmatic capital structure for SAIL in particular and for PEs in general are taken for the central issues of the work. As expected, this study has reinforced some of the important findings of earlier studies conducted by different authors in different periods and settings, the study also either establishes or refutes some of the common feelings and conjectures on the performance of PEs. Similarly, the study has made an attempt to answer to some of the emerging issues relating to the management of capital and capital structure of PEs, specially the question of D/E ratio; etc. and also thrown up several other questions requiring further investigation and examination. In this concluding chapter an endeavour would be made to present a brief summary of the study, review the major findings and conclusions, and estimate the implication of these findings in view of their application for the improvement of the functioning
of PEs and guiding the areas of future research as well. The study ends at a time when acrimonious debates are going on both inside and outside Parliament on the grim performance of PEs. What basically emerges from the debates is that Public Sector is like a ship that has lost its mooring. It is a drift on the rough sea, which has come about over the last few decades. At present, the rationale of running the loss-making PEs has been questioned and privatisation has been suggested as a possible remedy to get rid of the problem of subsidising them from the Exchequer.

Before the discussion of the chapter sets in, a brief note on the monumental economic changes, very recently has taken place both within the country and abroad, has to be taken into account, as the suggestions and recommendations must conform to such sweeping changes. Recently, the country has experienced some basic changes in the name of 'reforms' and 'restructuring'. The Central Government has embarked on 'liberalisation' policies aiming at departing from Nehruite line of economic development to privatising the economy to the maximum extent possible. The Eighth Plan document categorically envisages reduced role of PEs. It contains, inter-alia, that the Public Sector (PS) should withdraw from areas where no public purpose is served by its presence and market economy be accepted as the main operative principle 'unless it is necessary to protect the poorest in the society'; the PS should make investments only in areas where investment is
of an infrastructural nature for facilitating growth and development as a whole ...; in large parts of PS-operations where commodities or services are produced and distributed, unless it is necessary for protecting the poorest of the society, market economy should be accepted as the main operative principle; ...; although the PS will continue to perform a key role in the coming years, it is a fact that the present fiscal situation does not permit any more accumulation of unsustainable losses; ...; it called for efforts to restructure and revitalise PEs which are potentially viable through infusion of new technology, resources and rationalisation of labour for diversification or modernisation; equally, patently unviable PEs may have to be closed down with suitable social safety net-mechanisms including retrenching and redeployment being devised to protect interest of the workers; in many cases rationale of the PS entering certain industrial areas needs to be reexamined; there may have been very good reason in the past for the PS to take the initiative in industrial areas where the Private Sector would ordinarily either not enter or would hesitate to do so, this may not be the case today and restructuring of the PEs would essentially entail vacating such areas for Private Sector initiatives in coming years; ... Accordingly, the Eighth Plan investment level envisaged for PEs is ₹.347000 crores vis-a-vis ₹.450000 crores in PvEs (56.8% of total) and outlay in PEs is ₹.400000 crores including ₹.58000 crores of current outlay, 47.1% of
total outlay of \( \text{Rs.} 850000 \) crores compared to 43.2% share in aggregate investment (all at 1991-92 prices)\(^2\).

The present economic reform is likely to result in privatisation of PEs, exit policy for workers of loss-making PEs, high rate of inflation, removal of restrictions on imports and easy entry of multinationals - all these aim at starting market economy.

Since independence, PEs have grown larger and larger and turned into a part and parcel of Indian economy. Therefore, it is neither possible nor desirable to dismantle abruptly the edifice of PEs, simply because of their poor financial performance, as the outcomes of such a revolutionary and epoch-making measure would be severe which the economy may not be able to absorb. Rather, it would be better to look for the antidote that may revitalise the PEs. This has been the underlying spirit of the study. In fact, the inglorious phenomenon of PEs is not resulted from a single problem. It pervades all the areas of management. However, this study concentrates on one of the basic aspect of financial management, i.e., financing decision.

Pertinently, a brief reference may be made to the consequences of the present economic liberalisation on the Steel Industry in general and SAIL in particular. The Annual Report - 1991-92 of the Ministry of Steel released on 14.5.92\(^3\) points out that the Iron & Steel Industry has been exempted from the provisions of compulsory licensing; automatic foreign equity
participation up to 51 per cent has been granted in the pig iron, sponge iron and ferro alloys sector; and price and distribution have been deregulated from January, 1992. Besides, the Government has already decided that the production of Steel is no more the preserve for Public Sector and the Government will set up Steel Plant in the Public Sector no more, instead it hopes that the Steel output would be raised with private initiatives. In this context, it merits mention that a new integrated Steel Plant, Kalinga Steel Ltd. with 3 MTPA capacity, of ₹12000 crores, to go on production by 1996, has already been launched at Jakahapura, Cuttak, Orissa on 10.5.92 under joint sector by Orissa State Government and Swaraj Pal, a London-based non-resident Indian industrialist and the plant would have the latest 'state-of-the-art' technology. Moreover, the Eighth Plan outlay for Steel Sector has been pegged at ₹14000 crores against ₹24000 crores projected by the Ministry. Plan outlay for SAIL has been kept at ₹12500 crores against ₹19300 crores proposed by the Ministry. These economic reforms must have profound bearing upon the future role and function of PEs including SAIL. On the background of the changed environment which is becoming more and more 'turbulent', the finding of the study would be discussed.

On the other hand, some basic questions relating to PEs are raised in this concluding part of the study. The sole purpose of financial management is to increase profit and enhance the value of the firm to benefit the shareholders. All the theories,
tools and techniques of financial management are designed to attain the basic purpose. But, the PEs, unlike PvEs, are not interested to attain these goals. PEs have been asked to look after the social responsibility, set an example of a model employer, sell its product at a reasonable price, etc. In other words, it has to work not only for efficiency but for justice also. It is quite clear that there is a tendency to equate the PEs totally with PvEs not merely in terms of the performance but even as regards goals and priorities. This has resulted from the inadequate appreciation of the 'Public' and 'Democratic' context of PE-management. High value should be placed for social obligation, i.e., socio-economic aspect should, of course, prevail over financial aspect. The question of profit earning or any other aspect of financial management including capital structure decision of PEs should take cognizence of the above fact. The present tools of financial management candidly fail to measure the social benefits that a PE renders to the society. Therefore, the present financial management theories, tools and techniques are not sufficient for proper evaluation of PEs.

However, the preceding chapters may now be summed up in the following lines. The introductory part reveals that Indian economy consists of PvEs and PEs. PEs have been brought up with much aspirated end in view at the cost of voluminous investments. It is noted that PE-objectives are as varied as vast. These are admixture of social and financial obligations
having no clarity. Vast resources have been channelised during the Plan Periods towards its growth. Accordingly, PEs have grown conspicuously in terms of investment and number. In primary stages emphasis was laid on its growth and accomplishing social welfare and thereafter, gradually more and more stress has been put on its running commercially. Company form of organisation in PEs was also introduced early in 50s with this end in view. It is further observed that Central Government PEs have grown from 5 in 1951 to 246 in 1991 and their investments have advanced from only ₹29 crores in 1951 to as high as ₹85564 crores in 1989. It is also noted that PEs have been estimated to provide, on an average, 10.16 per cent of total contemplated source of finance during Plan Periods, starting from Third Plan and ending at Seventh Plan. Simultaneously, it is marked that the financial performance of Central PEs including SAIL was bleak. It is also noted that the country lost at least ₹10000 crores during 1951-78 for poor financial performance of Central PEs alone. The net profit to capital employed of Central PEs ranged between (-) 0.3 per cent and 4.4 per cent during 80s. More candidly, SAIL carried on huge accumulated losses during the period 1973-88. It is also noted, side by side, that TISCO, a self-schooled, self-scanned, self-secured and well-renowned PE is unique in its financial performance. Viewed thus, it is apprehended that capital structure decision is responsible for poor financial performance of PEs particularly SAIL.
Accordingly, the study embarked on a comparative study of capital structure of SAIL and TISCO for the period 1978-91.

In Part II of Chapter I it is noted that the Iron and Steel Industry in India actually began to blossom only after independence notwithstanding its antiquity and primitive supremacy. The ingot production and annual rated capacity grew by 7 times and 2.5 times respectively in India vis-a-vis 4 times and 2 times respectively in the world during the period 1950-90. Yet, the production forms only 1.5 per cent of the global total, while the population of the country tantamounts to 20 per cent of the world population. Thus, the total production of steel is quite at variance with the volume of population of the country leading to low per capita consumption of only around 15 kg against 150-160 kg, the world average, and 1500-1600 kg of the developed nations. The ingot production during 1989-90 led to 11.5 MT corresponding to the demand for 14 MT. Incidentally, in 1991-92 the salable steel production amounted to 14.5 MT, the total demand for and supply of finished steel was estimated at 16.35 MT and 14.55 MT respectively and that of pig iron was estimated at 1.92 MT and 1.44 MT respectively, leading to a gap to be filled in by import of finished steel of 1 MT and pig iron of 1 lakh tonnes. Thus, India is still an importer of steel even early in 90s. It is noted that its import exceeded export by Rs. 3350 crores in the Sixth Plan. It is really unbecoming and astonishing as well. However, some other features of growth of
the industry in the country are the spectacular growth in the field of research, design and development making the country self-reliant; the rapid growth of PE-steel covering about 0.8 of the total production early in 90s against 0.0 early in 50s; securing of around 14th and 46th position by SAIL and TISCO respectively in the global steel production schedule in late 80s when SAIL and TISCO contributed .58 and .16 respectively of total indigenous steel production; lower percentage capacity utilisation of SAIL as compared to TISCO during the period under study; etc.

In fact, the industry fails to develop satisfactorily due to inefficiency of PE-units caused by, inter-alia, heavy administrative and social overheads, poor labour relations, backward technology and delay in launching modernisation plan, inefficient management, low capacity utilisation, inefficient manpower planning, infrastructural bottlenecks like power-cut, gas-cut, supply of poor quality of coal, want of transport facility, poor employee-mix and product-mix, etc. - leading to low productivity and high cost of production. Besides, lack of freedom in pricing the product also affected the growth of PEs to a large extent. Incidentally, it may be recalled that the price and distribution of steel has been deregulated since the mid-night of January 16/17, 1992 and administered price is no longer in vogue. Subsequently, TISCO hikes steel prices since mid-night of May 17/18, 1992 and SAIL and Rastriya Ispat Nigam Ltd. (Vizag) jacks up steel
prices since mid-night of May 18/19, 1992. TISCO increases steel prices by ₹1800 per tonne, while SAIL and RINL raise it by 15 per cent, i.e., ₹1650 per tonne. The measure of decontrol as such, amounts to boon to SAIL at the first sight as because it is in a position to enhance steel price independently. As demand for steel is greater than production of steel in the country, the firm may have better control on price of its product and it would enhance the financial performance of the firm. Moreover, due to devaluation of money imported steel would also be costlier. This would add extra advantage to the firm at present. But, with the passage of time, due to presence of market economy, supply of steel would increase, imported steel will be cheaper. In such circumstances, SAIL would have to face severe internal and external competition and it will not be able to survive unless it improves its operational efficiency adequately. That pressing situation would compel the firm to adopt a capital mix which would enable it to improve its financial results. The study of the capital mix of SAIL would essentially be more pertinent in view of the emerging changes in economic policy of the country. However, the growth of the industry as well as PB-steel should have been much more attractive, but for the limitations and drawbacks stated earlier it could not be. Incidentally, the average percentage capacity utilisation of the industry during 80s was only 82 or so which is quite low.
In Chapter II it is noted that capital may denote assets or funds deployed in the business to yield profit. The present study has adhered to fund concept. In a broader sense capital is divided into external capital and internal capital. The latter comes from within the business out of business operation, while the former flows from without the business. Again, capital may be classified into ownership capital and debt capital, dearer capital and cheaper capital, and variable cost capital and fixed cost capital. Preference share capital, a hybrid security, is taken for debt capital in the present study. Besides, from the standpoint of longevity of the fund, it is classed as long-term capital and short-term capital.

Capital and capital structure are not synonyms. Capital refers to something 'whole', while capital structure denotes the composition of the 'whole'. The former connotes the quantity, while the latter purports the quality. Again, capital structure differs from financial structure though such difference is not maintained very rigidly. Financial structure signifies the way, the firm's total assets are financed, i.e., the entire liabilities side of the balance sheet of a firm, while capital structure is usually a part thereof provided the difference is maintained rigidly. In that, it includes either only the long-term funds or the long-term plus short-term funds. However, the present study has included short-term funds along with long-term funds in the
capital mix of sample firms as short-term funds resembles long-term funds to a some extent, noted clearly in the study. Moreover, capital mix may be simple or complex. It is simple when it is composed of only one element - equity or debt. Needless to mention that no firm can fill in the total requirement of capital with debt only. Complex capital structure is that which consists of both the elements - equity and debt. Simple capital mix is rarely found except in case of a beginner.

It is further noted that capital has also a cost of its own because of the 'time-lag' inherent in a production process. Cost of capital, the minimum required rate of return, differs from one type of capital to another type of capital in accordance with the nature and degree of risk concomitant with the fund. Equity, bearing maximum risk, costs most; debt (here loan), carrying minimum risk, costs least and preference share capital stands in the mid-way between equity and debt in respect of cost of capital that it entails. Again, cost of equity is variable, while that of debt is usually fixed. Naturally, there arises a question of keeping the cost of capital at minimum. That capital mix decision governs the cost of capital is a bone of contention. Traditionalists believe that capital mix decision affects cost of capital of a firm, while M-M contend it on the basis of some assumptions vehemently refuted by the former. On being convinced, the study, however, sided with the traditionalists upon considering the results.
of some subsequent empirical studies conducted by experts. It is also observed that calculation of cost of capital in PEs involves inferences and difficulties for various reasons like absence of market price of securities, profit and/or dividend and uniform rate of interest, the factors required to calculate cost of capital of a firm.

It is observed further that use of fixed cost fund, or financial leverage in the capital mix of a firm magnifies the effect of changes in EBIT on EPS or ROE. The effect is favourable when EBIT rises and ROI exceeds the 'rate of fixed cost of capital' and vice versa. That means, financial leverage may make or mar the EPS or ROE. Under favourable condition, i.e., when EBIT is on the wax, it results in 'trading on equity' but in opposite situation it has a harmful effect on EPS or ROE. Due to its fixed and usually lower nature of cost, the incremental gain accrues to equityholders under favourable condition on the one hand and chance of variability in EPS or ROE as well as of risk of ruin increases on the other. Thus, the use of financial leverage in capital mix of a firm involves both financial return and risk. Therefore, it follows the time-old maxim, 'no risk, no gain'; where there is no financial risk, there is no trading on equity. Other incidental benefits emanating from financial leverage are that it helps maintaining flexibility in the capital mix and preventing dilution in control, etc. In addition, it is observed that financial risk may accrue even in favourable conditions as a
result of increased use of debt. Again, preference capital
gives birth to trading on equity but no financial risk, but
loan capital offers better 'trading on equity' than preference
share capital as interest on loan is a charge against profit
and preference dividend is not. This may be the basic reason
for the obsession of PvEs with the loan capital instead of
preference share capital. However, when a firm does increase
financial leverage, the associated return and risk are per-
ceived by the investors at the margin, who, in turn, decide
the share price as well as the 'cost of capital' on the basis
of such perception. Eventually, a trade-off between return
and risk occurs at a point of time when the share price of
the firm becomes the highest and 'cost of capital' turns into
the lowest. The D/E mix representing the situation is an
optimal one, very difficult for a firm to identify and main-
tain in practice, as its work-environment, the major deter-
minant, is not only dynamic but sometimes turbulent also.
Nevertheless, with the hope of maximising earnings and value,
and of minimising cost of capital, each prudent financial
manager in PvEs strives for attaining and maintaining that
position by judicious use of financial leverage. This results
in continuous and rapid expansion of PvEs. TISCO is a case
in point. It changes its capital mix to develop and maintain
an optimal one. This phenomenon of TISCO has been discussed
in detail in Chapter IV.

But in case of PEs it is generally apprehended that such
usual conclusion is not always warranted. There are instances when PEs, failing to meet timely payment of interest and/or capital sum, get fresh loans for converting the amount of such default. Moreover, it is noted that capital mix of PEs are an outcome of Government's obsessive decision and not regulated by the operational management. As per BPE Circular No. 9(28)II/61 dated 13.6.61, 'the ministers concerned with Public Sector Undertakings were advised that unless there were exceptional reasons to the contrary, the E/D ratio should be 1:1! This remained valid upto 1968. Later, the CPU in its 15th report on the financial management recommended that rigidity may be avoided in applying the ratio of 1:1 to the Public Sector Undertakings and that if the undertaking made out a strong case for a relaxation, it should be conceded to (BPE No. 46/Adv/BPE/68/10). ARC also admitted that each PE should have a judicious capital mix. Thus, technically speaking, in PEs also finance has been given importance. Still, it is widely believed that poor performance of PEs on the whole is largely due to unsound and improper financial decision. And this is so even after admittance of the fact that the PEs have to bear usually a higher and disproportionate burden of social overheads, have to enter the industries with traditionally low profitability and long gestation lags, etc. CPU too in its general review of PEs in 1973-74 noted from Secretary, Ministry of Steel and Mines that heavy and continuous losses of SAIL eroded public confidence and that on an
equity of ₹600 crores in SAIL, the Exchequer got back ₹700 crores as interest and excise duty. Incidentally, the 'D/E ratio' in SAIL in 1967-68 stood at 0.96:1. Instances of such an unsound D/E mix in PEs are many having dreadful effect on its profitability. It is observed that the 'D/E ratio' in PEs to the extent of 1:1 ab initio is most probably to maintain uniformity among the capital structure of all PEs, to show economic cost, and to keep a check on the efficiency of internal management but certainly not to bring about optimality.

Rather, doubts have been expressed as to whether the principles of capital structure that apply to PEs hold good in the case of PEs as (1) in case of PEs owners and creditors are the same party, i.e., Government, receiving all - interest, tax and dividend and leading to no question of trading on equity, financial risk and dilution of control as well. Incidentally, it deserves mention here that this is not the fact today as major portion of debt of PEs is supplied by Non-Government parties and policy of divestment has ensued. Analytically, it is found in the present study that 60 per cent of debt of PEs was supplied by Non-Government parties during 1981-83 and 72 per cent of debt of SAIL was supplied by Non-Government parties during 1978-91 (vide Chapters III and IV), (2) the cost of equity and debt provided by the Government is considered to be the same, (3) the question of following the cost of capital and share price is absent as
the shares are usually not traded in the market, PEs are usually loss-makers and interest rates are not uniform. Thus, the concept of optimal capital mix is not applicable in the sense of the minimum required rate of return on additional investment or the cut-off rate for the use of resources so that the value of the equity shares is maintained at least at their existing level in the market, but the inherent idea can easily be applied. Prof. Mahasin rightly states, "the condition that with the additional equity capital provided by the Government, the return on its previous contribution should not be diluted, is an important one that has to be kept in mind. At present this is ignored in Public Sector Undertakings". In fact, poor capital structure decision has a dreadful effect on profitability and image of PEs on the one hand and on cost-consciousness, efficiency-mindedness of the internal management of the firm on the other. High 'D/E ratio', at variance with earning capacity, jeopardises profitability and image of the PE as interest is a charge against profit, while high 'E/D ratio' weakens cost-consciousness and efficiency-mindedness of internal management, as financial obligation connected with equity is viewed rather lightly and casually and that concomitant with debt is regarded seriously by it.

Admittedly, capital mix of PEs should be adapted, as nearly as possible, to its earning capacity, stage of operation, capital intensity, social obligation and pricing policy. But
it is further noted that the 'D/E ratio' of PEs in many cases are not only above the norm of 1:1 but also above that of PvEs and it is on the wax and not in keeping with earning capacity, etc., resulting in low profitability, poor resource generation and insignificant proportion of internal capital to total capital. Analytically, it is found that during the period 1981-83 the average 'D/E ratio' of PEs stood at 1.18 as against 1.04 in PvEs, average proportion of internal capital to total capital led to only 0.5 per cent in PEs vis-a-vis 33 per cent in PvEs, that of equity share capital was 45.5 per cent in PEs against 16 per cent in PvEs and that of debt capital worked out to 54 per cent in PEs as compared to 51 per cent in PvEs. Besides, Government loan formed 40 per cent of total loan. Dr. Banerjee also highlights in his studies that during the period 1983-88 the 'D/E ratio' of PEs amounted to 1.43 corresponding to 1.18 in PvEs. Kazipet and Charry also observe that the D/E ratio showed an increasing trend in PEs during the period 1973-87 while the average proportion of internal capital to total capital was only 12.36 per cent and the average 'D/E ratio' amounted to 52.63:47.37, i.e., greater than 1:1. Moreover, they analytically exhibit that 'D/E ratio' of PEs was not in keeping with earning capacity.

As to sources of capital, it is observed both in Chapters II and III that sources of PvEs are much more broad-based. PvEs usually utilise a good deal of internal capital and procure external capital mostly from the sources other than Government
in the form of share capital (both equity and preference),
debenture, term loan from financial institutions and banks,
public deposit, inter-corporate loan, leasing, etc., while
the PEs secure funds mostly from Government in the form of
equity share capital, grant-in-aid and loan. Of late, some
changes are being noted. PEs have been extracting debt funds
from banks, financial institutions (since 1969 under BPE DO
No. 20 & 21/Adv/Fin/68), public deposits (from July 1980
under Companies (Acceptance of Deposits) Rules, 1975, issue of
public bonds, specially created development funds at present.
As a result, the sources of PE-capital has been gradually
getting diversified and the strain on the Exchequer has been
on the wane. Still, Government loan formed 40 per cent of
loan fund and Government finance formed about 70 per cent of
total capital of PEs during 1981-83, so far our observation
is concerned. Moreover, public or employee-participation in
PE-equity, though not debarred by law, hardly takes place in
the country and so also the issue of preference capital. Of
course, as a result of change in the economic policy of the
Government in recent years, divestment of PE-equity to the
extent of 20 per cent in some selected PEs have been taking
place. This would further widen the capital base of PEs and
also reduce the burden on the Exchequer. The process, as may
be recalled, refers to budget of the Central Government, 1991-
92. Incidentally, it merits mention that 19,90,000 shares of
Rs. 10 each which amounts to 5 per cent of equity share capital
of SAIL also have been listed on Delhi Stock Exchange and the firm is now pursuing the listing of the shares with other 3 exchanges in Calcutta, Bombay and Madras. It is also learnt that 13 financial institutions and mutual funds including UTI, GIC, SBI capital market and mutual funds of PNB, Canara bank and Bank of India, etc., have picked up the SAIL's equity. In view of the scope for disinvestment of further 15 per cent of equity, the firm urged the Government to earmark a certain percentage of its shares for its employees as and when further divestment takes place. However, it is believed that employee-participation is better than public-participation in PE-equity. It would resultantly develop a sense of belonging, morale, team-spirit and, in turn, the productivity which is a crying need of the time. Therefore, it's a good gesture on the part of SAIL to urge the Government to reserve a part of divested equity for the employees.

In Chapter IV we have dealt with the analysis of capital mix and its impact on profitability of SAIL vis-a-vis TISCO with the help of tools selected therein. The tools selected for analysis consists of (i) 'D/E ratio' analysis, (ii) 'coverage ratio' analysis, (iii) analysis of 'percentage distribution of EBIT', (iv) 'EBIT-EPS or ROE' analysis, etc.

It is obtained from the analysis that, on an average, internal capital, equity share capital and debt capital shared 0.77 per cent, 55 per cent and 44 per cent respectively of total capital in SAIL and 41 per cent, 11 per cent and 48 per cent
respectively of total capital in TISCO during the period of 13 years (1978-91) under study. Moreover, the internal capital provided negative contribution in 7 years out of 13 years in SAIL, while TISCO capitalised general reserve of Rs. 54 crores by issuing bonus shares during the period of study. Again, by writing back of the amount of interest charged, it is noted that the number of years of negative contribution in SAIL could have been minimised to 2 from 7 and the amount of negative contribution in the said 2 years could also be reduced. Besides, it is found that 'equity per equity share' of the firm dropped below the face value of equity shares in 6 years out of 13 years indicating erosion of financial capital, while in TISCO the 'equity per equity share' was considerably higher than the face value of the equity shares in all the 13 years. This is an outcome of the nature of internal capital of the firms, the result, primarily of ROI and secondarily of D/E ratio and dividend policy.

Further, it is observed that both the capital mixes were complex in nature and 'D/E ratio' of SAIL and TISCO increased from .35 and .68 respectively in 1978-79 to 1.17 and .83 respectively in 1990-91. That means, the 'D/E ratio' of SAIL and TISCO accelerated by 3.34 times and 1.22 times respectively during the period under reference. Thus, the rate of growth of 'D/E ratio' in SAIL was greater than that in TISCO during the period 1978-91 when the average 'D/E ratio' of the firms stood at .80 and .92 respectively against the norm of
1:1 and 2:1 respectively. Moreover, it is apparent that the 'D/E ratio' of SAIL exceeded its norm in 1990-91, while that of TISCO remained far below its norm throughout the period of study. Hence, it is clear that TISCO was very much conservative to fixed cost of capital and SAIL was very much aggressive thereto. It is because TISCO cares for the far-reaching consequences of unsound 'D/E ratio' and SAIL does not, as its 'D/E ratio' is super-imposed from outside the firm, i.e., by the Government. Otherwise, in the face of such a poor resource generation, the 'D/E ratio' of the firm would not grow at such a rate.

Again, if it is assumed that both the norms of 'D/E ratio' of PvEs and PEs have been set scientifically, the 'D/E ratio' of SAIL should by no means exceed .50 of that of TISCO, as the 'D/E ratio' norms of the firms bear the said relation. But it is explored that the 'D/E ratio' of SAIL was more than .50 of that of TISCO in 12 years out of 13 years and it ranged between .44 in 1981-82 and 1.44 in 1990-91. That means, the 'D/E ratio' of SAIL was, on an average, .90 of that of TISCO during the period under reference. Therefore, it is distinct that the 'D/E ratio' of SAIL was disproportionate with, and relatively much more higher than, that of TISCO during the period under study.

In addition, it is candidly marked that the proportion of equity share capital to total capital of SAIL descended at a lower rate than that of TISCO and its decrease was balanced mostly by debt-proportion unlike TISCO where the decrease
was neutralised substantially by the proportion of internal capital, i.e., reserves and surplus during the period of study.

Moreover, a comparison of trend of \( \frac{D}{E} \) ratio with the trend of EBIT of the firms highlighted, more or less, the same results. It is explored that the \( \frac{D}{E} \) ratio of both the firms varied at variance with EBIT in some years during the period 1978-91. As such, it recorded 9 years in SAIL and 7 years in TISCO. Again, out of 9 years in SAIL, it increased (adverse trend) in 6 years, while out of 7 years in TISCO, it increased (adverse trend) only in 2 years. Thus, to all appearance, the \( \frac{D}{E} \) ratio of SAIL was inconsistent with that of TISCO, its EBIT, if not with its norm. This is possibly because the firm was compelled to collect necessary funds from the market without allowing it to market its equity shares. As a result, the firm had to resort to debt financing to meet its requirements in absence of adequate profitability and internal capital as well. Hence, prima facie, the \( \frac{D}{E} \) ratio of SAIL increased for low profitability and unsound financing decision of the Government; again, increased \( \frac{D}{E} \) ratio depressed its profitability, impeded its operational flexibility and resulted in its erosion of financial capital even in 6 years out of 13 years under reference. However, for confirmation, the study resorted to some other methods of analysis, the findings of which would appear later.

In short, our study reaffirms that the internal capital of
PEs is very poor; 'PE-D/E ratio' is on the wax and sometimes greater than that of PvEs and of the norm as well. Of course, a single difference that emerged is that the equity share capital formed .55 of SAIL's total capital during 1978-91 against .45 of total capital of PEs during 1981-83.

In course of analysis of capital mix, some other points evolved. For instance, SAIL used long-term loan to meet a part of working capital requirement of the firm, which does not essentially indicate any sound financial policy. Side by side, the short-term loan of the firm increased abnormally by 59 times vis-a-vis only 5 times in TISCO. Such an abrupt increase in short-term loan along with participation of long-term loan in working capital was possibly due to the poor working capital management of the firm. Besides, it came to notice that the sources of finance of TISCO were also much more broad-based and the Government loan provided very negligible share of total capital of TISCO where SDF, debenture, etc., played vital roles during the period under study. On the other hand, the Exchequer provided cent per cent of equity share capital and 28 per cent of total loan of SAIL during the said period.

That means, Government source rendered 12.6 per cent and 55 per cent of total capital of SAIL as loan and equity share capital respectively during the period concerned. Thus, it constituted 67.6 per cent of total capital of the firm, which conforms to our earlier finding as to PEs as a whole. Another remarkable point is that the share of Government loan to
total loan of SAIL declined from a soaring height of .95 in 1978-79 to only .09 in 1990-91. It indicates that SAIL reduced or was compelled to reduce its burden on the Exchequer. Besides, SAIL widened its loan fund base by two sources, during the period under study, viz., SDF loan and public deposit, the share of which grew considerably during the said period to replace Government loan and bank loan. The reduction of SAIL's dependence on Government Exchequer undoubtedly commensurates with the present changes in economic policy of the Government. During analysis it also transpired that the total capital, net worth and debt capital of SAIL grew by 3 times, 2 times and 7 times respectively during the period under study, while in TISCO the components advanced at a greater rate by 12 times, 11 times and 13 times respectively. It indicates that the growth rate of SAIL was very low during the said period.

In course of study it is unearthed that SAIL capitalised a part of interest during the period 1979-91 and enjoyed interest holidays during 1983-85. The observation, thus, conforms to our statements made in Chapter II. However, it is interestingly noted that the ROI of the firm lagged behind the rate of interest charged to P/L account in all the years of study save 1988-89 and it was less than the rate of interest including capitalised part in all the 13 years even in 1988-89. On examination of the EBIT/Fixed Cost of Capital (here interest), it is observed, again, that the ratio was
less than 2, the generally accepted standard, in all the 13 years but 1988-89. In terms of EBIT/Interest excluding capitalised part and EBIT/Interest including capitalised part the ratios worked out, on an average, to 1.40 and 1.09 respectively. Mention may be made that the firm, on an average, earned about only 4 per cent on total capital and charged 6.36 per cent interest on loan to P/L account, while the total rate of interest payable by the firm stood at 8.16 per cent. In case of TISCO the ROI was less than the rate of fixed cost of capital only in 1983-84 possibly due to some uncontrollable and unprecedented phenomenon like sudden change in Income Tax Rules requiring the firm to charge extra depreciation, etc. Again, the EBIT of the firm was more than twice the fixed cost of capital in all the 13 years except in said 1983-84. The firm, on an average, earned 15.89 per cent on total capital and paid 11.26 per cent interest during the period under study. Therefore, strictly speaking, in terms of coverage ratio SAIL had debt capacity in not a single year as its ROI was lower than the rate of fixed cost of capital including capitalised part in all the years under study. Only due to capitalisation of interest, the ROI exceeded the rate of fixed cost of capital of the firm in 1988-89. This does not actually imply any sound accounting principle. Of course, the EBIT of the firm exceeded the fixed cost of capital excluding capitalised part in 11 years and, the fixed cost of capital including capitalised part in 8 years. However,
it is not a real barometer to measure the debt capacity of a firm. This means that debt had to be served out of the earnings fetched by equity as its own yields were less than what it claimed.

To measure the gravity of the interest on EBIT the study also analysed the percentage distribution of EBIT and noted that SAIL had channelised, on an average, .71 of EBIT towards interest during the period under study, and the total interest payable formed .92 of EBIT during the said period, while the 'fixed cost of capital' in TISCO consumed only .34 of EBIT during the said period. But, the gravity of 'interest payable' and 'D/E ratio' on the EBIT of SAIL was conceivably excessive and not in keeping with earning capacity, social obligation, etc., of the firm during the period under consideration. Thus, our study reinforces the common belief that the 'D/E ratio' of PEs is not adapted, as nearly as possible, to earning capacity, etc.

Resultantly, the profitability in terms of ROE of SAIL was badly injured in all the 13 years except in the year 1988-89 even after charging only a part of rate of interest, i.e., only 6.36 per cent which is just 56 per cent of that of TISCO enjoying 'trading on equity' in all the 13 years but 1983-84 when the 'coverage ratios' of the firm were adverse and 'D/E ratio' was highest for the firm during the period under study. It is at anyone's guess what would have been the fate of ROE of SAIL, had the firm not been allowed to capitalise interest.
In fact, SAIL secured, on an average, only 1.83% ROE by charging a part of interest to P/L account, but it could earn, on an average, 3.73% ROE, had no debt financing been made at all. In other words, it is noted that ROE of SAIL would have been better in all the 13 years in absence of debt capital. It may be stated here that a firm should not resort to debt financing unless 'return from that instrument' is higher than the 'rate of fixed cost of capital' as such.

Thus, it may be concluded that the 'D/E ratio' and its growth in SAIL were detrimental to profitability, operational flexibility and at the same time it cannot be denied that the low profitability of SAIL was mainly due to low ROI, which was analytically due to, inter-alia, high 'operating ratio,' low 'stock turnover ratio,' etc., of the firm. More specifically, the firm was deficient in managing its materials, stores & spares, power & fuel, purchase of product, depreciation and interest.

Of course, the scenario has changed. SAIL has been striving heart and soul for progressing on a sound footing on the basis of Memorandum of Understanding (MOU), long range corporate planning from 1986-87. Consequently, it has wiped off all its accumulated past losses in 1988-89, experienced profits in subsequent years and expected to achieve internal generation over 25 per cent more than what had been expected by the Planning Commission in 1992-93. Moreover, it has embarked on a massive modernisation plan from 1988-89.
assuring the Government that it would not depend upon budgetary support for its developmental investments and would generate resources on its own. In fact, it appears that the firm has reached the take-off stage to get rid of the vicious circle. A critical minimum support is badly needed for the firm at this juncture when the radical changes in the economic policy in the country ensues resulting in drastic measures against the PEs including SAIL. As may be recalled, the Eighth Plan outlay has slashed the outlay for Steel and SAIL as well, which would, of course, put SAIL into severe trouble in the years to come in materialisation of its modernisation programmes as noted earlier. However, under such circumstances it is highly suggestive that SAIL should be saved from strangulation caused by imposition of heavy ‘D/E ratio’. The firm really deserves sympathetic consideration. The scheme of finance should pay due attention to the profitability and image of the firm. The question of ‘D/E ratio’ of SAIL as well as of PEs as a whole must be kept under vigilant watch, meticulous review, frequent discussion with experts in the full light of facts, figures, difficulties, peculiarities of the PE concerned. An operative design in accordance with the ARC’s report to classify PEs into homogeneous groups must be evolved by the BPE itself. As such, a scale system to lay proportionate weightage to various governing forces may be evolved in the following line. On the basis of how the determinants of capital mix
influence capital mix of a firm, the firm concerned may be placed on different intervals in each scale indicating the scores. Assuming that no relative weightage among the factors considered is laid, the simple total of scores on each scale would indicate the debt capacity of the firm concerned. The maximum possible score for a firm would be the aggregate of the highest scores of the number of scales used and the minimum possible score would be the number of forces or scales used. However, a model scale system may be placed hereunder. 3 forces and 3 firms, A, B and C, are being considered here.

<table>
<thead>
<tr>
<th>Use of Scale System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestation period</td>
</tr>
<tr>
<td>Score</td>
</tr>
<tr>
<td>Firm</td>
</tr>
<tr>
<td>Business Risk</td>
</tr>
<tr>
<td>Score</td>
</tr>
<tr>
<td>Firm</td>
</tr>
<tr>
<td>Earning Capacity</td>
</tr>
<tr>
<td>Score</td>
</tr>
<tr>
<td>Firm</td>
</tr>
</tbody>
</table>

The aggregate of the highest scores here is 9 and this is the maximum score, while the minimum score is only 3. That is, a
firm can score 9 at the most and 3 at the least. There cannot be any hard and fast rule for design of the scale and the number of scales to be used. It would depend on circumstances. Here, on 3 point 3 scales, each of the firms, A, B and C has scored 6 points. Therefore, each firm under consideration deserves equal 'D/E ratio'. The range of 3 to 9 may be split-up into a suitable number of 4 or 5 class intervals. Each running PE may then be scored along these scales and put into the appropriate class interval. This frequency distribution will indicate the relative practical 'D/E ratio' differential amongst the various PEs. Of course, the absolute levels of D/Es for the lowest and highest class intervals are to be properly decided on a policy matter in the first place before assessing 'D/E ratios' to the other class intervals. Needless to state that the factors considered here are not exhaustive, nor equally weighty and the measurement technique indicated here for each factor could also be subjected to critical review to be held by the BPE itself. Incidentally, it may be mentioned that business risk of a firm can be measured from past behaviour of quantity of sales and gross profit by the statistical method of 'coefficient of variation'.

As to SAIL, it may specifically be stated that its 'D/E ratio' should be reduced to as minimum as possible to adapt it to the firm's earning capacity and it may be allowed to change along with the change in its earning capacity which is expected to grow. In fact, in view of its present level of ROI,
its 'D/E ratio' should be 0:1. As it belongs to the basic industry which is the backbone of the economy, special consideration should be attached to the firm in relaxing its 'D/E ratio' up to 0:1 (here debt refers to long-term loan only). Moreover, as floatation of equity of SAIL has already been approved, public-participation and employee-participation in equity may be enhanced up to a maximum extent without causing conversion of the PE into a PvE. Again, the study does reiterate, employee-participation is preferable to public-participation. As may be recalled, the equity share capital, long-term loan, short-term loan and reserves & surplus provided, on an average, .55, .33, .11 and .01 of total capital of the firm during 1978-91. Therefore, equity share capital, long-term loan and reserves & surplus formed .89 of total capital. Out of .89, employee or public-participation may conveniently be allowed up to .44 of total capital. This would not turn the PE into a PvE. On the contrary, pressure on the Exchequer will reduce to a great extent. Cost of capital will also be easily ascertainable to deduce optimal capital mix of the firm. Again, employee-participation would bring forth some other consequential coherent benefits. It would develop a sense of belonging, dignity and status in workers as co-partners and would secure a share for the workers in company's future prosperity. This, in turn, would boost up employee morale, promote industrial relations, increase productivity, step up internal resource generation and
ensure growth of the firm as noted earlier. Pertinently, it may be mentioned that though the Government of India has expressed its firm faith in the effectiveness of Workers' Participation in Management (WPM) and the need for WPM has been acknowledged in various official pronouncements and accordingly different schemes, viz., Works Committee, Joint Management Councils (JMCs), and Shop and Joint Councils, etc. have been launched at different times, the system has not succeeded as yet. Under such circumstances, employee-participation in equity may have a far-reaching favourable consequence in SAIL in particular and in PEs in general. To facilitate employee-participation, bonus payable may be given partly in the form of equity and partly in cash. Again, to stimulate the process at the initial stage even an amount of loan may also be given to the employees. In case the employees fail to subscribe, these should be offered to the public and as a last resort Government should finance the firm with redeemable preference share capital which may satisfy both the firm and the Government as noted before in Chapter II of the study. This is all about long-term source of finance of the firm. As to working capital it may be suggested that SAIL would procure short-term loan from SDF, public deposit, bank, etc. apart from internal capital. To comply with expansion and modernisation schemes, the firm should of course resort to self-financing, the firm has already committed to. Moreover, particular care is needed in respect of
financing of social overheads so that it is not financed out of debt finance in any way, as this is totally an unproductive expenditure. Mere divestment may relieve the Exchequer but it would not result in restructuring of the firm's D/E ratio which is of utmost importance. Again, the internal management of the firm should be bestowed adequate behavioural autonomy in the matter of planning the financial mix. Because, it is the right organ that is closely familiar with every nut and bolt of the firm. Even Rosi Modi, the Chairman cum Managing Director of TISCO, advocates that privatisation of management of PEs is more cardinal than that of equities. On the contrary, the floatation of equity in the market would facilitate the calculation of cost of capital as mentioned earlier. The internal management endowed with sufficient functional autonomy would be in a position like that of PvEs to afford to maintain lowest cost of capital, i.e., optimal capital mix of the firm. However, it may be reiterated here that the existing planning techniques of capital structure used conventionally in PvEs are not appropriate for PEs in view of their contextual differences from PvEs, hence some befitting techniques are required to be evolved.

Again, stress on the relaxation of the D/E ratio of SAIL alone would not bring about real improvement of the firm, as the key to success lies elsewhere. To enrich the firm with adequate profitability and image, it is essential to raise
its poor ROI by dint of reducing cost and wastage on the one hand and by raising sales and adopting appropriate price policy on the other. However, the recent Government-measure of steel_price-decontrol would enable SAIL to adopt appropriate price policy. For maximising the ROI, cost control and cost reduction become imperative. Cost reduction is co-extensive with every aspect of operations of the firm. There is scope on counts of material usage, quality and productivity apart from prices. Labour utilisation calls for much greater economy that could be attained through enhancement of productivity; reduction of idle time; improvement of workskills through training, education, exposure, etc.; and improvement in cost consciousness, work-climate as well as work-culture.

Rosi Modi, the Chairman of TISCO asserted that mere globalisation of the country's economy would not yield the desired results, unless it was accompanied by a change in the existing work-culture on a global pattern. He added that import of computers was not enough, the country needed a system by which goods could be manufactured and delivered on time.

The fixed overheads per unit of product can be reduced by improving capacity utilisation, particularly in terms of machinery by cutting down delays caused by power-cut, gas-cut, mechanical break-down and operational delays. Variable overheads require itemised control. The burden of administration and distribution overheads can be reduced only through effective budgetary control and increase in the marketing
productivity as well. If the operation cycle can be quickened, much of the present problems experienced by the firm can be mitigated. Inventory control must be strengthened by setting up inventory norms, disposal of obsolete non-moving items, procuring high valued items in phased manner to avoid blocking of capital and reduce interest burden. Implementation of modernisation scheme is to be expedited and pervaded through out the all units of the firm.

In fact, effectiveness of an enterprise essentially depends on the efficient utilisation of human and non-human resources which, again, is essentially a function of efficient and result-oriented management. Thus, inadequate performance and low productivity of the firm, in general, are attributable primarily to managerial inefficiency resulting from lack of consistency in management policies arising out of high rate of managerial turnover and short tenure of top executives, lack of clarity of objectives, inadequate and at times, faulty communication of contents and implications of the decisions, complex and cumbersome procedure of selecting top executives leading to the PE being without top level personnel for quite a long period of time, dearth of requisite degree of behavioural autonomy and faulty nature of control and accountability, etc. Dr. Monmohan Singh pointed out that those who swear by the Public Sector do not grant those enterprises legitimate functional autonomy. As remedial measures it is suggested that the objectives of the firm must clearly be
laid down to facilitate the modulation of policies for achievement of the goals. The practice of manning the top management mostly with politicians or retired defence personnel or bureaucrats should be discontinued forthwith as far as possible. Instead, persons having varied experience, indepth knowledge and high-level skills on managing commercial and non-commercial aspects, and at the same time morally committed to the socio-economic objectives of the firm should preferably be put at the helm of affairs of the firm. In deed, complete professionalisation of the top management is vital. The tenure of service of the top management personnel should be raised from 2 years to 5 years or more to give them scope for becoming familiar with the firm and developing a sense of belonging and commitment. However, it is a pity to state that top management personnel are transferred before the expiry of the term, notwithstanding Government's acceptance of 5 years as the tenure of top management personnel in principle. Participation of managers in the decision-making process should be allowed to motivate them. Their views should be given adequate weightage. Except in the cases of the key-decision areas behavioural autonomy is highly suggestive. Rosi Modi has rightly said that the management of PEs should be privatised rather than their equities. The managers from Private Sector should not only be inducted in PEs but also be given autonomy. A reasonable degree of autonomy should certainly be granted so far as financial and allied matters are concerned, and there
must be a perfectly matching system of control and accountability. The firm should be allowed to plan its own financial structure within a broad set of norms and rules framed and reviewed from time to time by the Government. Structural defects impeding the control system should be removed to the extent possible and there should be no overlap of the decision-making and controlling authorities. A system of 'Responsibility Accounting' should be introduced and those who are specifically responsible for failure to achieve the target set, should be made accountable. In deed, without the existence of a well-integrated, simple-to-operate and computerised Management Information System (MIS), no control system can really survive, not to speak of work. Moreover, there must be a system of continuous monitoring and evaluation of the capital investment projects, etc., so also review of the performance of the firm as a whole, to ensure at least, that the projects are completed within scheduled time. Performance budgeting system should better be used for exercising control on all financial and allied matters. To reassert, cost is to be reduced with constant thrust to achieve better than the budget.

However, PE-evaluation should adhere more to non-commercial obligations than to commercial obligations. Therefore, a meaningful attempt should be to try to make a 'social cost-benefit analysis' (SCBA) whereby the various social benefits conferred and social cost incurred by the firm can be measured.
which, however, is not an easy task. Concept of profit maximisation, as understood in firm-level analysis, does not usually internalise certain costs. 'Traditional accounting' finds it very difficult to incorporate this 'externality' problem into its own framework. In fact, some financial as well as non-financial indicators should be evolved and established to evaluate the firm properly.

Moreover, 'value added technique' may also serve the purpose better than that can be served by 'traditional method of financial accounting' which, as a measure of PE-performance, can explain very little for its greater sensitiveness to accounting techniques and external factors beyond the control of the firm. Profit-based ratios are not available in the loss-making years. 'Value added' unlike 'profit' is not disturbed by variation in 'D/E ratio'. Incidentally, 'value added' refers to incremental value added to the materials and other inputs consumed by the firm, i.e., the excess of revenues from sales over materials consumed. Materials imply raw materials including power & fuel bought from outside. Therefore, value added = sales - cost of input in sales. In short, 'value added technique' may conveniently be applied in PEs along with 'conventional financial accounting'.

In the present study SAIL has been considered as a whole. An inter-unit comparison of its different units may be of utmost importance and fruit-bearing as well. More candidly, a comparative study on the 'nature of contribution and fixed
cost' of different units of SAIL may yield some far-reaching results. It may be mentioned pertinently that in course of investigation some valuable information as to the nature of 'contribution' and 'fixed cost' of DSP held out in Table 5.1 was secured.

**TABLE 5.1**

**NATURE OF CONTRIBUTION & FIXED COST OF DSP DURING 1985-91**

<table>
<thead>
<tr>
<th>Rs./t</th>
<th>'85-86</th>
<th>'86-87</th>
<th>'87-88</th>
<th>'88-89</th>
<th>'89-90</th>
<th>'90-91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution</td>
<td>2105</td>
<td>1864</td>
<td>1429</td>
<td>1279</td>
<td>1541</td>
<td>2211</td>
</tr>
<tr>
<td>Fixed cost</td>
<td>2382</td>
<td>2309</td>
<td>2302</td>
<td>2749</td>
<td>3283</td>
<td>3709</td>
</tr>
</tbody>
</table>

Source: Cost Section, DSP.

It is crystal clear from Table 5.1 that the 'contribution' of DSP during the period 1985-91 was too poor to absorb the 'fixed cost' of the unit. On interrogation, a bank of information as to the cause of poor nature of 'contribution' of the unit was availed, which needs further verification through rigorous research. An inter-unit comparison of the various units of SAIL is sure to reveal ins and outs, pros and cons of each unit.

Besides, the present study encompasses only two firms, one PvE and one PE. The study would be better if a 'group of similar PvEs and PEs' are considered. Capital mix of the two
groups may be examined and compared.

A study may also be conducted on some selected PEs composed of 'some profit-making PEs' and 'some loss-making PEs' to focus the impact of capital mix on the profitability of the concerns.

Again, capital mix of 'some successful PvEs' may be examined to find out the basic rationale behind the changes of capital mix. These information will provide valuable guidelines for capital mix planning of both PEs and PvEs.
REFERENCES

1. The Economic Times, Calcutta, dated 22.5.92, p.9.

2. Ibid., dated 15.5.92, p.10.

3. The Statesman, Calcutta, dated 15.5.92, p.11.

4. The Economic Times, Calcutta, dated 12.5.92, p.16.

5. Ibid., dated 18.5.92, p.1.


8. Ibid., dated 19.5.92, p.1.


11. Ibid., dated 18.5.92, p.1.


16. Ibid.,


19. Ibid., dated 15.5.92,