Capital Structure and its Restructuring in Public Enterprises

V. Gopal

Indian Institute of Management Calcutta

1995

Thesis Advisory Committee:

Prof. N. K. Rao (thesis supervisor), Indian Institute of Management Calcutta

Prof. Ambuj Mahanti, Indian Institute of Management Calcutta

Prof. Hrishikesh Bhattacharyya, Indian Institute of Management Calcutta

Thesis Summary

Public enterprises have occupied the centre stage of our country’s economic policy since independence. As a consequence, any study in the area of financial management of public enterprises becomes very relevant. One of the important aspects of financial management is the issue of debt to equity ratios. In this dissertation, we have looked at the issue of debt to equity ratios in public enterprises. For this two different definitions of DER, long term debt to equity ratio have been used. In total debt to equity ratio, we have considered the cash credit component also in addition to the long term debt as a part of debt.

Firstly we have looked at the experience of various other countries in this regard. We have found there was no other country which had a prescriptive norm like 1:1 for debt to equity ratios as in the case of India. It may be noted that due to nature of the ratio, the profitability of the enterprise could change the debt to equity ratio from the initial value of 1:1, unless conscious steps are taken to readjust the value to 1:1 at the end of each year.

It was found that the ratio of 1:1 did not hold good in case of central public enterprises. This was empirically established at 1% significant level. For further analysis, the enterprises were divided into four categories, oil companies, other profit making companies, accounting loss making companies and cash loss making companies. The need for this type of grouping has been explained in the text. It has been found that the relationship between business risk and debt to equity ratios, in the case of first three groups were as expected though the correlation itself was not significant.

Then, regression analysis has been done to find out the significant variables which explain the variation in debt to equity ratio (both on total debt basis as well as long term debt basis). The explanatory variables were shortlisted from the reports of various committees on Public undertakings, interviews with various international and Indian experts and the variables used in a study conducted by Centre for studies in Public Enterprise Management at IIM Calcutta. In all, thirteen variables were short listed. The short listed variables were, business risk, capital intensity, interest service coverage ratios, return on capital employed, ratio of value added to

capital employed, ratio of profit before tax to net worth, ratio of long term debt to net fixed assets, interest rates and ratio of gross profit to net sales. From these, the significant variables which explained the variations in debt to equity ratios were found out for five years, starting from 1986-87 to 1990-91, for each of these four groups of enterprises.

In the case of petroleum companies, the significant explanatory variables were, moving average of capital intensity, moving average of gross margin to capital employed , moving average of value added to capital employed, long term debt to net assets etc. However, during the earlier years, the interest rates also explained the variations significantly. In the case of profit making non-petroleum companies, the variables which explained the variations to a significant extent were interest service coverage ratio, interest rate and ratio of gross profit to net sales. In the case of accounting loss making companies, variations were explained mainly by the ratio of profit before tax to net worth, interest rates and interest service coverage ratios. Apart from this variables like moving average of value added to capital employed, business risk etc. also significantly explained the variations during one or two years during the five year period under consideration. In the case of cash loss making companies, the significant explanatory variables were, ratio of profit before tax to net worth, interest rate, moving average of gross margin to capital employed. Apart from this during different during different years, ratios like interest service coverage ratio, long term debt to net fixed assets etc. also explained the variation during one or two years.

It has been found that, the explanatory variables ere similar across years for the same group of enterprises, but varied across groups. In the case of loss making enterprises, there was evidence to believe that the losses were being financed by debt. The results were very similar for both total debt equity ration= as well as long term debt to equity ratio. Thus, there was an in-built bias towards pushing the loss making public enterprises into a debt trap.

The last chapter, deals with the issue of capital restructuring in public enterprises. Enterprises wherein capital restructuring could have played a very significant role in turning around the loss making enterprises have been identified. Apart from this, three illustrative case studies on capital restructuring have been given. Out of the three, one deals with an enterprise which has been turned around successfully, while the other two are still making losses. From these cases, it is clearly established that mere capital restructuring is not enough to turn around perennially sick companies, but many other thins such as good leadership, an effective marketing set up etc. are needed. There are some enterprises which have been started knowing fully well that they will make losses. This may be due to the reasons of strategic importance or for protecting the interest of the labor (this applies mainly to taken over companies). In those cases, with the existing policy framework it is not possible to turn them around.