REVIEWS

Economic Rate of Return : ICICI Projects. Bombay, The Industrial Credit and Investment Corporation of India Ltd., 1975, 136 p.

Despite the modesty shown by the Chairman Mr. H. T. Parekh in his introduction to the book under review in considering it as a "relatively modest technical exercise", the ICICI can be considered to have done a pioneering work in the area of applied social cost-benefit analysis. It is one thing to write on cost-benefit analysis on a theoretical plane involving intricate concepts and rigorously derived algebraic relationships and it is another to bring it down to the more mundane level of practical application in a variety of real life situations. Operationalisation of theoretical guidelines is quite an effort by itself and it is more so in an area like social cost-benefit analysis and that too for a country like India where availability of requisite data and reliability of available data pose particular problems. Any departures made from the standard approach during the course of the present study should, therefore, be viewed in the light of above observations.

The objectives of the study are two fold : First to assess the economic (i.e. social) costs and benefits and derive the economic rates of return which are then compared with the conventional financial or market rates of return with a view to identify and analyse the causes for differences between the two rates. Secondly, to examine the international competitiveness of Indian projects. Although it is not explicitly stated one can see the need for the study in the dual role played by ICICI. First as a financing agency whose profitability is linked with the profitability, in terms of market rates of return, of projects it finances. Secondly as a custodian of scarce capital resources which have to be allocated amongst competing projects taking a much broader perspective in terms of their social costs and benefits as reflected in their economic rates of return. Although financial institutions do take into consideration factors other than prospective financial rates of return before sanctioning assistance, the present study is perhaps the first systematic attempt in this direction, though on an ex-post basis.

The population for the study comprises ICICI-financed projects which are completed during 1967-70 numbering 208, of which 114 are new and 94 are expansion projects. The final sample selected for the study consists of 42 projects and provides a reasonably representative cross-section of the population as stratified random sampling procedure with proportional allocation has been adopted for sample selection. The details of sampling procedure are provided in a note on the sample given at the beginning.

The book has been divided into five sections and three appendices. Section I deals with the methodology adopted for the calculation of economic rates of return. The authors have followed essentially the approach suggested by Little-Mirrless (L—M), more popularly known as the O.E.C.D. Manual. However, the method has been described in the book as 'partial

Little-Mirrlees' in view of the departure made in the valuation of non-tradables. This sec[illegible] is the core part of the entire study as the calculations made in the subsequent sections are ba[illegible] on the valuation methods developed here. However, it has been compressed in about [illegible] pages. It certainly deserves more space and greater detail. The inputs and outputs of a p[illegible] ject are categorized under three heads — Tradables, Non-Tradables (other than labour) a[illegible] Labour. Actual f.o.b (in case of exportables) and c.i.f (in case of importables) prices [illegible] taken for the valuation of tradables for which international prices are available. In case [illegible] domestically produced items for which international prices are not available, "Actual domes[illegible] costs were divided by a conversion factor which was assumed to be equal to the weight[illegible] average difference between the known international and domestic prices of similar items in t[illegible] project account" (p. 22). A few numerical examples would have helped in better compr[illegible] hension as the above statement is amenable for multiple interpretations. Similarly for t[illegible] valuation of Non-Tradables (excluding labour) it has been suggested that "Another way [illegible] estimating the SCF is to take the average of the world price/domestic price ratio for a wide an[illegible] representative collection of commodities·····and an SCF of 1.5 was assumed for deriving th[illegible] accounting prices" (p. 23). Here also numerical examples would have been helpful. Furthe[illegible] when we read the above quotation along with the related foot note No. 3 given on the sam[illegible] page, it becomes apparent that the ratio should be Domestic Price / World Price to have a[illegible] SCF of 1.5 but not the other way round as given in the book. To derive the shadow wag[illegible] rate for labour the authors have used a simple rule, viz.

$$SWR = \frac{C - m - a}{1.5}$$

but they did neither explain the rationale behind it nor the way in which the figure 1.5 has been obtained. In fact, substitution of the values given in the book in the above formula would result in an SWR of 0.507 but not 0.57 which appears in the book owing to a printer's devil (p. 26)

Section II provides the economic and market rates of return for the sample projects. Out of a total of 42 projects 24 showed economic returns higher than market returns thereby belying the common expectation that Indian Industry lacks international competitiveness. The authors have gone into the reasons behind this 'surprising' finding and provided a very logical set of explanations which makes a very interesting reading. Even for the 18 projects with economic returns less than market returns, 9 projects have shown a satisfactory economic return of more than 12%. Only seven projects (4 new and 3 expansion) have shown an unsatisfactory economic return of less than 8% but their market returns are quite high excepting one projects. Plausible explanations were given and useful conclusions drawn from a comparison of the economic and market returns in terms of new and expansion projects, product groups, size classes, etc. This chapter not only gives the reader insight into the causes for the differences between economic and market returns but also provides corroborative evidence for the prudence and farsightedness of ICICI in the choice of its loan portfolio.

ction III basically deals with the sensitivity of economic returns for changes in (i) interna-nal price of output, (ii) the value of shadow wage rate, (iii) life of the projects. Further, sitivity of economic returns to the adoption of an alternative method for the valuation of n-Tradables, which uses a single SCF for the entire Non-Tradables component, has also en considered. Economic returns are found to be highly sensitive to changes (10% higher, % lower) in the international price of output and the degree of sensitivity has been found to ry inversely with the initial rate of return. Another interesting finding is that the rank rrelation coefficient between the three sets of returns is as high as 0.97. As a result, the lative rankings of projects are not likely to change much under the assumption of uniform ice changes for the output of all projects. However, when individual project acceptability is nsidered at a cut off rate of 12%, nearly 36% of the sample project's acceptability or other-ise depended on international prices lying within 10% margin of error. This is a significant nding and its usefulness cannot be overemphasized in a period of international price volatility nd fluctuating exchange rates. When one reads Table III-6 on p. 55 along with the footnote iven one can easily see that the sensitivity of economic retern to changes in shadow wage rate s low. Consequently it has been concluded that "it is not necessarily true that if labour is valued t half its actual costs, the portfolio of acceptable and marginal projects would be substantially ifferent from that at actual wage rate" (p. 56). This is a very surprising finding and calls or further probe and inquiry. Sensitivity of economic return to project life is considered by ssuming a low life of 12 years and a long life of 20 years. While longer life assumption did not have significant effect on the categorization of projects in terms of satisfactory, marginal and low return projects, the smaller life assumption has considerable effects. Use of an alter-native method (i.e.) single SCF for all Non-Tradables, called method II, has resulted in lowering the economic returns more or less consistently. The reasons for it are clearly explained.

Another interesting aspect of section III is the calculation of expected values of economic returns for 31 projects. This is an attempt made towards risk analysis of economic returns. Besides best assumption returns, alternative economic returns have been derived under different assumptions in regard to factors considered crucial. These factors may differ from project to project. Expected values are derived in two different ways : (a) By assigning a probability of 0.6 to the best assumption return and the balance probability of 0.4 being uniformly distributed over all the other alternative returns. (b) By assigning probabilities according to subjective evaluation of alternative outcomes. There is virtually no difference in the classifica-tion of projects made on the basis of returns under best assumption, expected value I and expected value II approaches. This exercise by itself is a laudable effort and its usefulness would have increased further had the authors provided a technical note outlining the procedure adopted for the derivation of subjective probabilities. Further calculation of standard deviation or coefficient of variation would have indicated the degree of riskiness associated with project returns and it would be interesting to see the behaviour of risk across industry groups and also between expansions and New Projects.

Section IV entitled 'Assessment of Results' provides answers to the questions regarding the

economic quality of ICICI's loan protfolio and the international viability of Indian Projects. Within the limitations of the present study, the answers to both the questions are quite satisfactory. Some of the limitations of the present study such as the difficulty of valuing non-tradables, valuation of domestically procured items for which international prices are not available, the volatility of international prices and the inadequacy of a reliable data base in India are discussed. Reservation has been expressed on the logic and practical applicability of L-M method which lays greater emphasis on more proximate or direct benefits and costs and assumes free-trade. In this context it may not be out of place to raise a few more points that did not receive adequate attention. First, the calculation procedure for economic rate of return appears to have a built in bias in favour of import-substitution projects vis-a-vis Export promotion projects. All other costs and volume of out put remaining the same between two projects, one an import-substitution project and the other an export-oriented project, the former would indicate a greater economic return than the latter as the valuation base for output is different. In the case of import substitution project the output is valued at c.i.f price while the output of the second project is valued at f.o.b which is usually lower than the c.i.f price. In so far as the output of developing countries has to be priced lower in the international market, the gap seems to widen further. Secondly, in the book international prices seem to have been converted into rupees at the official exchange rate. However, it is common knowledge that dollars fetch a premium over the official exchange rate in the unofficial market. The authors should have recognized this factor and reckoned with it by adding a premium on to the official exchange rate which would then have really reflected the scarcity value of foreign exchange. Thirdly, the authors could have given the reasons more elaborately for discarding an equally well-known approach to project appraisal, more popularly known as UNICO guidelines, which takes into account the related indirect benefits and externalities.

Section V compares the L-M method followed in the book with two other methods, viz. Effective Rate of Protection (ERP) and the Domestic Resource Cost (DRC). ERP calculations were made under two alternative criteria in regard to the valuation of Non-Tradables. The ranking of projects under the ERP method has been found to be not consistent with the original ranking. A refined version of DRC on the other hand, has given results that are consistent with the L-M method.

Appendix I provides rules adopted in the study for the decomposition and valuation of Non-Tradables based on the OECD study. Appendix II gives a number of statistical tables related to the study. Appendix III is quite useful as it contains a case study of a cement expansion project with detailed workings and also a statement of the conversion factors used for revaluing Non-Tradables. A few points need a little more clarification with regard to the workings of the case. First, the reason for adopting the 'Before and After Principle' in preference to the 'With and Without Principle' for the estimation of incremental costs and benefits is not explained. Secondly, the Internal Rate of Return approach has been followed for the calculation of market and economic returns. If there are more than one project, the ranking based on projects' IRR may not necessarily agree with the ranking based on NPV and NPV is

supposed to be theoretically superior. Thirdly, the issue of cut-off rates has been neglected. For example what should be the criterion rate of return to decide on the acceptability of a project? Should it be the same for market rate of return and for economic rate of return. If is not the same for both the returns how to choose criteria returns and on what bases? These issues deserve a separate section.

The book is obviously a pioneering work of its kind and the ICICI authorities deserve every praise for their pains-taking efforts, The sample of projects included in the study is drawn from a population of Private Sector Projects. The need for the calculation of economic (or social) rates of return is more accute in the case of Public Sector Projects. A similar study for a sample of Public Sector Projects would be a worthy and welcome sequel to the present study. Corporate Executives concerned with Project Appraisal, Management Consultants and research workers in the area of Cost-Benefit Analysis will be immensely benefitted by reading this book. Financial Institutions should seriously consider the feasibility of making the calculation of economic rates of return an additional appraisal exercise.

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A Management Guide for Small Entrepreneurs. by Siddhartha Ganguly, Sudhis Chandra Guha and Samindra Kumar Gupta. Calcutta, Kwality Book Company, 1977. 94p, Rs. 15.00

In recent years there is a growing interest among the planners, academicians and management experts in the activities of the Small Scale Sector in our country. In most of the recent literature available on the subject, the role and importance of Small Scale Enterprises in the national economy as well as their problems and prospects of growth are increasingly being highlighted. Despite the various schemes of the Government to render financial and other material support, it is seen that a majority of Small Scale Enterprises are not able to sustain themselves for longer periods in this highly competitive sector. It is felt that the key to their success lie in effective management which could be achieved through proper management orientation of the Small Entrepreneurs. The present volume aims at providing exposure of concepts and tools of management to the entrepreneurs for solving their day to day management problems in a more scientific manner.

The book has twelve chapters (in 87 pages) and an appendix (of two pages) on Institutions serving the Small Scale Entrepreneurs. The first three chapters are devoted to a discussion of the 'enterpreneur' the 'enterprise' and 'marketing orientation'. The following six chapters cover the financial aspects of the enterprise with specific chapters on how funds are utilised, how to