

Project Appraisal in Pakistan: A Review

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INTRODUCTION

The less developed countries face real problems in allocating their scarce resources to multifarious needs such as the development of adequate physical and social infrastructure and for investment in the primary and secondary sectors. Thus, the role of the government in the developmental process in these countries should be to control investment in the public and private sectors with a view to maximizing both national income and social welfare. For this, it is imperative that only such projects are selected as contribute most to the achievement of these objectives. This necessitates sound planning.

Plans, whether they be national, regional, sectoral, or local, must have a set of projects associated with them. These projects will result from the identification, definition and analysis of the problems and needs confronting a society and, if implemented effectively, they will contribute to the fulfilment of the development objectives.

If proper project planning should follow an integrated planning and management cycle, then appraisal becomes critically important. Project appraisal is defined as the examination of a project from the technical, commercial, economic, financial, institutional, managerial, and sociological points of view. However, in this paper, our emphasis is limited to an economic appraisal of projects with particular reference to the appraisal methodologies and techniques being followed. Our main objective is to find out (1) whether our development-oriented agencies undertake any economic appraisal of projects, and (2) if they do so, do they follow any specific methodology. We feel that such a study is necessary because, at the moment, no published information in the form of appraisal guidelines exists in the country, and this lack of guidelines leads to an adoption of arbitrary approaches to benefit-cost analysis of projects in the public and private sectors. The paper, which is not intended to serve as a guideline in the selection/rejection of investment proposals for development,

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does present in published form information on whether or not project appraisal methodologies and techniques are being followed in Pakistan.

The paper comprises four sections. The first section defines project appraisal and mentions various non-discounting and discounting techniques. The second section looks briefly at the three project appraisal methodologies being used internationally, viz. the Little and Mirrlees approach (also called the OECD approach) [12; 13], the UNIDO approach [5; 23; 24], and the Lyn Squire and Van der Tak (S-T)/World Bank approach [20]. The third section examines the practice of appraisal methodologies being followed in Pakistan as evident from the appraisal reports of various institutions engaged in developmental work. The fourth and concluding section presents the shortcomings of these appraisal reports and also offers some recommendations.

1. PROJECT APPRAISAL

Project appraisal can be defined as a comprehensive and systematic assessment of the viability of a project from different aspects. It aims at serving as a guide to the decision-maker in the selection/rejection of projects from among competing alternatives for investment proposals. The various aspects of a project which a decision-maker must consider include technical, commercial, financial, institutional and economic aspects.

An analysis of the economic aspect, or economic appraisal, assesses the desirability of an investment proposal in terms of its effects on the economy as a whole. Economic appraisal requires identification, quantification, and valuation of the correct costs and benefits of projects. Shadow prices are used to evaluate all inputs and outputs and externalities are taken into account. Application of the technique of cost-benefit analysis helps to determine project profitability. Various criteria such as the Internal Rate of Return (IRR), the Net Present Value (NPV), the Benefit/Cost Ratio¹ and the Bruno Ratio [3; 4] can be used to estimate the profitability of a project. These are also called the discounted cash flow analysis techniques. None of these is perfect and none of them is in any way a substitute for value judgement, but their application does improve the decision-making process.

2. PROJECT APPRAISAL METHODOLOGIES

The discounted cash flow techniques of project appraisal mentioned in the previous section are to be used to determine whether a project represents a good use of resources, under both conventional the "new" benefit-cost analysis methods. In the conventional analysis, the emphasis is on judging the viability of a project from

¹These criteria are discussed in any standard book on benefit-cost analysis. However, for a description of their practical application, see Gittinger [6] and Irwin [10].

the point of view of its contribution to national income. Implicit in it is the assumption that the growth objective is the primary concern of a government at the national level, but no consideration of the inter- and intra-temporal distribution of income is taken into account. In the "new" analytical methods, which were evolved in the '60s and '70s, two innovative features involving, firstly, the estimation of shadow prices for planning purposes and, secondly, the incorporation of distributional considerations into the analysis were introduced. The three main methodologies mentioned above will be discussed briefly to acquaint the reader with their salient features.

The Little-Mirrlees (L-M) Methodology

The essence of the Little-Mirrlees/OECD approach to project appraisal is the choice of the numeraire and the use of world/border prices as a measure of value. The numeraire is defined to be "uncommitted government income measured in terms of foreign exchange" [12, p. 72]. In other words, it is "net present investment benefits in the hands of the government measured in domestic currency at border prices" [8, p. 4 of 11, Annex A]. All project inputs and outputs in this method are evaluated at border prices including the non-traded inputs such as electricity, construction, local transport and labour that can not be imported. To value the non-traded inputs in border prices, an iterative approach of breaking these down into their traded and non-traded components is adopted. The traded items are to be valued at border prices, while the remaining non-traded ones are to be further broken down and revalued by the same process. This process of iteration continues until one is left with tradables and unskilled labour. In view of data constraints, rough and ready approximations to world prices in the form of conversion factors are made. These conversion factors take care of domestic market distortions. The accounting rate of interest, which is the fall in the value of investment over time, is used as a discount rate.

The UNIDO Methodology

This method of project appraisal first appeared in a United Nations publication [5]. It can be distinguished from the L-M Methodology in the following three ways.

- (i) It defines the numeraire as "the present aggregate consumption benefits in the hands of the average person in the private sector at border prices measured in domestic currency" [8, p. 4 of Annex A].
- (ii) It incorporates into the project evaluation process, in quantitative form, the income distribution impacts of projects for the first time. The UNIDO method uses the consumption rate of interest, which is the fall in the value of consumption over time, as the discount rate whereas the L-M method uses an accounting rate of interest. Another contrasting feature of this method is its recognition that non-optimal conditions

will continue to exist in trade. Therefore, domestic consumers' the willingness to pay will be the relevant measure of value. The L-M method, on the other hand, assumes that trade policies will be more liberal in future and therefore border prices will represent real opportunity costs.

In the UNIDO method, the central planning office is not very authoritarian as compared to the planning authority in the L-M method, which is powerful enough to influence policy decisions.

Another UN publication [23] redefines the UNIDO numeraire as 'critical consumption' rather than 'average consumption' and makes the methodology more practicable in its application. It decomposes project appraisal into five stages. Stage 1 deals with commercial/ financial profitability of a project where the analysis uses market prices. At Stage 2, when efficiency in the use of resources is the main objective, appraisal is carried out using shadow prices. At Stage 3, adjustment is made for any impact on savings and investment made by the project through the use of shadow price for investment. Stage 4 incorporates income distributional aspects into the analysis. Stage 5 makes adjustment for merit goods to which the government attaches great value, for example, basic-needs requirements, which are then shadow priced higher than luxury goods.

The Lyn Squire and Van der Tak (S-T)/World Bank Methodology

The third methodology of appraisal, which draws heavily on the L-M/OECD methodology [12; 13], is that developed by Lyn Squire and Herman G. Van der Tak [20] for the World Bank. It is a synthesis of the L-M and UNIDO methods and has two distinctive features. One, it bases the economic evaluation on a consistent shadow pricing system, and, two, it incorporates distributional considerations into the analysis.

The analysis here is carried out at two levels: (i) at the economy level, where projects are chosen on the ground of an optimal allocation of resources, and (ii) at the society level, where the effects of projects on both inter- and intra-temporal distributions of income carry more weight in selecting projects for implementation.

At the social level, the distributional issues encompass two dimensions: inter-temporal distribution and intra-temporal distribution. Inter-temporal distribution is distribution of income between present and future generations, i.e. between consumption and investment. Here a savings premium can be used when the level of national investment/saving is below what is required to secure the desired level of growth. Intra-temporal distribution is distribution of consumption (income) between members of the present generation, i.e. between the rich and the poor. Here consumption weights can be used to manipulate the distribution of income.

The main focus of the S-T approach is on the scarcity of foreign exchange faced by many developing countries. If the availability of foreign exchange allows rapid economic growth and vice versa, then this approach recommends the use of foreign-exchange premium for project evaluation. This is in addition to the use of a shadow price of foreign exchange which aims at correcting the distortions introduced by the protective policies being followed in foreign trade.

A version of this methodology is found to have been adopted for economic appraisal of projects in Pakistan by the Project Appraisal Section of the Government of Pakistan's Planning and Development Division. We examine the application of this methodology in the following section.

3. PROJECT APPRAISAL METHODOLOGIES FOLLOWED IN PAKISTAN

Project Appraisal Section of the Planning and Development Division

All projects needing the approval of Central Development Working Party (CDWP) and Executive Committee of the National Economic Council (ECNEC) have to be appraised by the Project Appraisal Section of the Planning and Development Division, Government of Pakistan. Although no set guidelines exist for project evaluation, the section does undertake some economic and social cost-benefit analysis of projects.² Here the appraisal is carried out in the following manner: see [16]. The first step is to derive a cash flow based on an annual statement of costs and benefits of the project. The next step involves the subtraction of transfer payments, e.g. duties, subsidies from the cash flow, etc. Inputs and outputs are divided into traded and non-traded items. Traded goods (at c.i.f. values if imported, and at f.o.b. prices if exported) are converted into domestic currency using the official exchange rate. Non-traded goods are usually valued at their market prices exclusive of any transfer payments. All non-traded inputs, except power and fuel, are valued at market prices and multiplied by a standard conversion factor (SCF) which is defined as the ratio of official exchange rate to the shadow exchange rate. Alternatively, it is the reciprocal of 1+ foreign exchange premium. The purpose of applying SCF is to convert all non-traded inputs and outputs into their border price equivalents. A ten-percent premium on the foreign exchange component of all projects is used, allowing for scarcity of foreign exchange in the country. In the absence of shadow prices, the cost of utilities such as gas, electricity, and other fuels is taken to be double that of the market price.

After this exercise the three measures of discounted cash flow (IRR, NPW, B/C Ratio) are employed to arrive at the viability or otherwise of the project. The cut-off rate for industries is 20 percent in the public sector and 15 percent in the private

²At the provincial level, however, the appraisal of projects is carried on in an *ad hoc* fashion, based on 'guesstimates' and a few technical considerations. However, foreign-funded projects are appraised using discounted cash flow analysis.

sector. However, for the remaining sectors, it is 12 percent.³ Another part of the basic tests of viability is sensitivity analysis which is also undertaken and is applied to the calculations to a limited extent.

Relating the section's working to the S-T methodology, it can be seen that its first stage, which deals with efficiency analysis, is adapted to the Pakistani situation. In other words, an efficient allocation of resources is given preference in the selection of projects. Growth, an inter-temporal income distribution issue of social analysis at the second stage, is being followed in a simple form. A ten-percent premium is placed on foreign exchange generation in order to reflect its scarcity.

Those aspects of social analysis which relate to intra-temporal distribution of income are not being incorporated into the analysis of projects in Pakistan. The reasons are obvious. There is a shortage of trained staff for the application of this methodology and the absence of social parameters and prices. However, four attempts have been made to calculate shadow prices [7; 11; 21; 25] but the official response to the acceptability or otherwise of these estimates is not known to us. It is a fact that a deteriorating intra-temporal distribution of income over time is a major concern in many developing countries including Pakistan. The introduction of equity considerations into project selection can be considered an important complement to other policy measures. Thus, to undertake a comprehensive social analysis of projects the need for social pricing is felt more than ever. But, it is also a fact that the calculation of the social parameters is a difficult task. This is because of the poor data base and the complexity associated with the estimation of these parameters.

Recently it has also become important to calculate another ratio, the domestic resource cost/Bruno ratio for appraising the import-substituting/export-promoting projects [3; 4].

Two versions are in vogue in the literature to calculate the ratio [23; 13]. The first can be shown as follows:

$$\text{Modified Bruno Ratio} = \frac{\text{Present worth of domestic currency cost of realising foreign exchange saving}}{\text{Present worth of net dollar saving}} \geq \text{SER}$$

The ratio is compared with the shadow exchange rate (SER) and the decision is to go for those projects which have a ratio less than the SER.

The second version of the Bruno ratio can be described as follows:

³Source: Project Appraisal Section, Planning and Development Division, Government of Pakistan.

$$\text{Modified Bruno Ratio} = \frac{\text{Present worth of domestic currency cost of realising foreign exchange saving}}{\text{Present worth of net foreign exchange saving expressed in domestic currency}} \geq 1$$

In this case, a ratio less than 1 is desirable as a viability measure.

The Bruno Ratio being worked out by the Project Appraisal Section is nearer the first version. Its working can be shown as follows. Inputs and outputs are grouped into traded and non-traded items and then evaluated at their relevant shadow prices. Two streams, viz. the net foreign exchange benefit stream and the domestic currency cost stream, are thus prepared and discounted at the appropriate rate of discount. It is demonstrated below:

$$\text{Modified Bruno Ratio} = \frac{\text{Present worth of domestic currency cost of realising foreign exchange saving}}{\text{Present worth of net foreign exchange saving in local currency}} \times \frac{\text{Official Exchange Rate}}{\text{Rate}}$$

The purpose of calculating the Bruno ratio is to find out the domestic resource cost of earning/saving a unit of foreign exchange through a project. A comparison of this ratio with the official exchange rate and the shadow exchange rate is required in order to determine whether the cost is high or low in relation to both the exchange rates. This latter step appears to have been left out in the appraisal reports of the section.

Lately, the Planning and Development Division has asked for calculation of the effective protection rate as a viability measure. This rate, in its unmodified form, does not take into account distortions in the domestic factor market. If modified, it is no different than the modified Bruno Ratio [13]. Also, it has been shown that the modified Bruno method/Domestic Resource Cost and the effective rate of protection give the same results if optimal trade policies are followed [17]. However, in cases in which non-optimal trade policies are expected to continue during the life of the project, the modified Bruno Ratio/Domestic Resource Cost is the only suitable criterion which can be used as a viability measure [2]. Given the non-optimality of our trade policies, the recommendation of the effective rate of protection as a viability measure in project selection will not refine the decision-making process.

Development Financial Institutions (DFIs)

Our analysis has been restricted to the more prominent of the financial institutions which include the Agricultural Development Bank of Pakistan (ADBP),

Pakistan Industrial Credit and Investment Corporation (PICIC), Industrial Development Bank of Pakistan (IDBP), National Development Finance Corporation (NDFC), Regional Development Finance Corporation (RDFC), etc. The discussion in this section is based on the examination of various project appraisal reports of the DFIs which were supplemented by interviews with the concerned officials [1; 9; 14; 18 and 19].

After a perusal of the reports of these institutions, several common features emerge. The most important one is that all the institutions place great emphasis on the technical, commercial, and financial viability of projects. Financial appraisal is undertaken in a fairly detailed manner which includes calculation of the Internal Financial Rates of Return as well as financial ratios such as debt-equity, debt-service coverage, return on equity, return on capitalization, etc.

Partial economic analysis is carried out by using the sponsors' supplied border prices for imported machinery and shadow prices for unskilled and semi-skilled labour. Also, in the absence of appropriate shadow prices, utilities such as gas and power are valued at market prices which are then doubled to reflect the relative scarcity of these items. Isolated attempts at calculating the Bruno ratio are also undertaken. Apart from this, general statements are made to justify projects from the economic point of view, e.g. an increase in employment opportunities, the prospects of foreign exchange earnings, import substitution, etc. Thus, in general, a very crude method of economic analysis is undertaken, which bears no resemblance to the 'new' project appraisal methodologies mentioned in an earlier section.

4. CONCLUSIONS AND RECOMMENDATIONS

After an examination of the project appraisal reports of financial institutions it was observed that all of them undertake financial appraisal as a measure of project viability in addition to technical and managerial/commercial feasibility. No doubt financial appraisal is done very comprehensively and thoroughly, but financial institutions, being development-oriented, do not give due importance to the economic effects of the investments undertaken through their lending activities. This may be due to the fact that the staff of these institutions is not trained in the use of the latest methodologies in project appraisal and, also, some of them like the NDFC and RDFC, are recent additions to the family of development banking institutions in the country. Another reason could be that these institutions do not have available to them any set of guidelines for the appraisal of projects. In any country, these guidelines have to be prepared by the central planning authority. Another important related factor is the absence of national parameters and shadow prices without which meaningful economic and social analyses cannot be undertaken.

The Project Appraisal Section of the Planning and Development Division, Government of Pakistan, however, has introduced some methodological approaches

in the *ex ante* evaluation of projects. The traditional CBA has been modified and, after the use of the UNIDO approach in its crudest form over the last few years, a shift has now been made to a new approach developed by Lyn Squire and Van der Tak for the World Bank [20].

Several recommendations can be made on the basis of the preceding analysis.

Firstly, there is an overwhelming need for printed guidelines/manuals which can be used by the appraising agencies for selecting projects. The objective of the guidelines/manuals should be to provide a practical basis for the economic appraisal of projects funded by both the public and private sectors. These guidelines/manuals should be comprehensive and easy to follow so that time is not wasted.

Secondly, if any meaningful economic analysis is to be based on these guidelines/manuals, shadow prices of inputs and outputs have to be used. In Pakistan, national parameters and shadow prices such as discount rates, shadow exchange rates, shadow wage rates, etc., are based on arbitrary assumptions. Also, it is a fact that the use of realistic prices of inputs and outputs affects the economic viability of projects. It is important, therefore, that border prices be used for tradable items and market prices, adjusted for distortions for non-tradable items. In Pakistan the prices used by the sponsors of projects for tradable items are not reliable as the source is not quoted in their appraisal reports [15]. It can be suggested that economic export and import parity prices be used in evaluating tradable inputs and outputs. Economists in the Planning and Development Division can compute the more critical shadow prices and all development agencies can then be asked to employ these in their project analyses.

Thirdly, though the government is concerned with distributional aspects in the project selection process, the data requirements of a complete social analysis are immense, which, given the current data base and the absence of shadow prices and conversion factors required for such an analysis, make it necessary to restrict project appraisal to a complete efficiency analysis only. However, the efficiency analysis should be supplemented by a qualitative social analysis till such time as social parameters can be estimated and a comprehensive social cost-benefit analysis undertaken.

Fourthly, for the economic analysis of all projects, whether in the public sector or in the private sector, which require the approval of CDWP/ECNEC for the former type and CIPC/DFI/ECC⁴ for the latter, the criteria of profitability should be restricted to three measures. These include the Internal Economic Rate of Return (IERR), the Net Present Worth and the modified Bruno Ratio. However, the effective rate of protection should not be used as a viability measure in the selection of projects. The use of the modified Bruno method serves the purpose adequately.

⁴ CIPC is Central Investment Promotion Committee;
DFI is Development Financial Institutions;
ECC is Economic Co-ordination Committee of the Cabinet.

Sensitivity analysis, which is a prerequisite for a careful economic analysis, is a powerful tool in project appraisal and is of great assistance to the decision-maker in pinpointing potential areas of trouble and enabling him to reduce certain forms of uncertainty. Therefore, it is recommended that sensitivity analysis should be carried out for all major public and private sector projects.

Finally, as mentioned earlier, the Project Appraisal Section is following a partial Squire and Van der Tak approach in scrutinizing projects. However, we feel, that, given the shortage of data, the appropriate methodology to follow would be the stage-by-stage UNIDO approach to cost-benefit analysis. An application of this approach to Pakistani projects is made by John Weiss [25].

Although the final outcome would be the same whether the Lyn Squire L-M approach is adopted or the UNIDO stage-by-stage approach is followed, but the advantage of the latter is that projects can be appraised at different stages, keeping in view the prevailing government objectives and the data situation [23]. If the government objective is to maximize national income only, then the analysis up to the second stage of the UNIDO approach is to be followed. However, if the objectives change and the data base is improved, the subsequent stages can be undertaken. This approach would therefore be more appropriate because owing to the shortage of trained staff and immense demand on their scarce time, justification can be found for following this methodology.

REFERENCES

1. Agricultural Development Bank of Pakistan. Project Appraisal Reports, Islamabad. (Various Reports)
2. Balassa, B., Daniel M. Schydrowsky. "Domestic Resource Costs and Effective Protection Once Again". *Journal of Political Economy*. Vol. No. 1. January/February, 1972.
3. Bruno, Michael. "The Optimal Selection of Export-Promoting and Import-Substituting Projects". In Planning and External Sector: Techniques, Problems and Policies, Report on the First Interregional Seminar on Development Planning, Ankara, Turkey 6-17 September 1965, pp. 88-135. United Nations publication number ST/TAO/SER.c/91. New York: United Nations, 1967.
4. Bruno, Michael. "Domestic Resource Costs and Effective Protection: Clarification and Synthesis". *Journal of Political Economy*. Vol. 70. No. 1. January-February 1972.
5. Dasgupta, P.S., S. A. Marglin, and A. K. Sen. *Guidelines for Project Evaluation*. New York: United Nations. 1972.
6. Gittinger, J. Price. *Economic Analysis of Agricultural Projects*. Baltimore: The Johns Hopkins University Press. 1972.

7. Guisinger, Stephen. "Calculating Shadow Prices in Pakistan: Reflections on the Paper by Squire, Little and Durdag". *Pakistan Development Review*. Vol. XVIII, No. 2. Summer 1979.
8. Hansen, J. R. A Guide to the Guidelines: The UNIDO Method. Washington D.C. (U.S.A) World Bank n.d. (World Bank Staff Working Paper No. 166)
9. Industrial Development Bank of Pakistan. *Annual Report 1983-1984*. Karachi. 1984.
10. Irwin, George. "Modern Cost-Benefit Methods. An Introduction to Financial, Economic and Social Appraisal of Development Projects". London: The Mac-Millan Press. 1978.
11. Khan, Muhammad Zubair. "Estimation of Shadow Prices for Project Evaluation in Pakistan". *Pakistan Development Review*. Vol. XVIII, No. 2, Summer 1979.
12. Little, I. M. D., and J. A. Mirrlees. *Manual of Industrial Projects Analysis*. Vol. II, Paris: OECD Development Centre. 1968.
13. Little, I. M. D., and J. A. Mirrlees. *Project Appraisal and Planning for Developing Countries*. London: Heinemann Educational Books. 1974.
14. National Development Finance Corporation. "Project Appraisal Reports". (Unpublished). Karachi. (Various Reports)
15. Pakistan. Planning and Development Division. Project Appraisal and Evaluation Section. "Economic Analysis of Private Sector Projects". Islamabad. March 28, 1985. (Office Memorandum No. 9, (6-40) PA & E/PC/84.
16. Pakistan. Planning and Development Division. Project Appraisal Section. Islamabad. (Various Reports)
17. Pearson, Scott R. "Net Social Profitability, Domestic Resource Cost, and Effective Rate of Protection". *Journal of Development Studies*. Vol. 12, No. 4. July 1976.
18. Pakistan Industrial Credit and Investment Corporation. "Project Appraisal Reports". (Unpublished) Karachi. (Various Reports)
19. Regional Development Finance Corporation. "Project Appraisal Reports". (Unpublished). Islamabad. (Various Reports)
20. Squire, Lyn, and Herman G. Van der Tak. *Economic Analysis of Projects*. Baltimore: The Johns Hopkins University Press. 1975.
21. Squire, L., I. M. D. Little and M. Durdag. "Shadow Pricing and Macroeconomic Analysis: Some Illustrations from Pakistan". *Pakistan Development Review*. Vol. XVIII, No. 2. Summer 1979.
22. Squire, Lyn, I. M. D. Little and M. Durdag. "Application of Shadow Pricing to Country Economic Analysis with an Illustration from Pakistan". Washington, D.C. (U.S.A): World Bank. n.d. (World Bank Staff Working Paper No. 330)

23. UNIDO. *Guide to Practical Project Appraisal: Social Cost-Benefit Analysis in Developing Countries*. New York: United Nations. 1978.
24. UNIDO. *Practical Appraisal of Industrial Projects: Application of Social Cost-Benefit Analysis in Pakistan*. New York: United Nations. 1980.
25. Weiss, John. "Project Selection and Equity Objective: The Use of Social Analysis". *Pakistan Development Review*. Vol. XVIII, No. 2. Summer 1979.

Comments on "Project Appraisal in Pakistan: A Review"

The project appraisal methodologies are mainly (one might even say, exclusively) the work of international financial institutions active in project appraisal, with some academic input. Their objective is that the benefits from project investment, in both the public and private sectors, should be maximized for society — not just for the entrepreneur. But the methodologies for economic appraisal have not been used: at least not effectively. The paper argues that not only is there no set of appraisal guidelines for the financial institutions in Pakistan but even the Planning and Development Division does not undertake economic appraisal with noticeable rigour. They concentrate instead on determining financial viability (to the exclusion of economic viability), and it would be implied that, as a result, low-priority projects have been chosen which obviously involve a sacrifice of public welfare.

All this, of course, cannot be literally true. Financial institutions do engage in some economic appraisal; and if the Planning and Development Division were really so strong on financial appraisal, the public sector industry would have shown quite different results. Further, the authors have shown which projects have been wrongly chosen or which ('neglected') projects should have been taken up for investment if the right kind of analysis had been applied.

The paper raises a very important point in drawing attention to the need for ongoing and *ex post* evaluations, which are practically non-existent. The experience of the Experts Advisory Cell, set up under the Ministry of Production for monitoring public sector projects, is an extremely important initiative in this connection and one expects that its experience would yield many important guidelines for ongoing evaluation.

Three essential questions to be asked are: Why are the techniques for economic appraisal not used? What are the consequences of this failure? What is the remedy?

In so far as the reasons for failure are concerned, we have to distinguish clearly between the global perspective at the macro level from the analysis of individual (usually repetitive) projects. Project evaluation at the macro level does require very careful analysis of the economic and social conditions which provide the setting in which projects operate. Evaluation of individual projects (whether public or private)

follows clear guidelines set by the National Economic Council and spelt out through such instruments as the Five Year Plan, the Annual Plan, the industrial policy statement, etc. The guidelines are further sharpened by the import policy and the credit control system operated by the National Credit Consultative Council and the State Bank of Pakistan. These instruments of public policy delimit the areas within which industrial investment is to proceed and also lay down the incentives aimed at channelizing investment into the desirable but less remunerative areas. Economic analysis is thus undertaken by the Planning and Development Division and major organs of the state, to lay down the directions, size and content of investment to be undertaken.

Take the example of restricted industry: some projects cannot be sanctioned even if viable financially. Coca Cola is a very remunerative project. Its financial returns are high. It is often referred to as a gold mine. But no financial institution would sanction a Coca Cola project. It is obvious that economic analysis carried out at a certain level threw up such strong negative indicators that further investment in this lucrative industry has been ruled out. Similarly, projects which lead to heavy dependence on imports (expensive in the social and economic sense, not in the commercial sense) e.g. polypropylene manufactures, are not freely sanctioned. Again, the location of a sugar mill at Bannu or a forest complex at Dir, which were not feasible financially, were justified on socio-economic considerations.

But it must also be stated that economic analysis, which supports the establishment of a sugar mill in Bannu or a forest complex at Dir, would entail a set of measures seeking to improve their financial viability (e.g. building infrastructure, promoting cultivation of sugar-cane) or at least absorbing their losses. Both require considerable financial outlay which of necessity must be channelized through the national or provincial exchequer in order to overcome negative features of the financial viability. Experience seems to suggest that either economic analysis undertaken to push investment towards the less developed areas is soft and, therefore, ineffective in outlining with sufficient emphasis the action plan for the government in order to build infrastructure, provide subsidies, and undertake support actions to make the project financially independent, or the government does not give timely and effective response, so that the projects drift into the morass of cost over-runs, low utilization of plant and machinery, rising inventories and progressively higher losses. One would like to feel that in all these cases it is weak economic analysis (and not inaction of government) which has wrecked so many investment decisions, made with much promise. But can we be sure?

The real difficulty lies in the choice between competing permissible projects. If two projects are viable, financial institutions choose the one with a higher return. But economic analysis could show that the one with lower financial returns is more desirable socially when it stimulates growth in a backward area. In comparing a flour

mill in Peshawar as against a flour mill in D.I. Khan, Peshawar will always win — unless a hard-headed director, with a feeling for the backwardness of D.I. Khan, can get the option of higher financial gain altered. Financial institutions do need economic analysis to rationalize such choices.

What have been the consequences of this failure? It must be conceded that many illogical and 'contra-economic' projects have been financed. Dispersal of textile industry to areas which could not be supported is well known. So is the sorry spectacle of 'sick' industry, groaning under the heavy burden of debts, not being allowed to go into liquidation for the fear of the unknown, while being denied adequate and timely injection of capital. The measures adopted for their financial restructuring have been slow and, in many cases, inadequate. But can it be claimed that the approaches to economic appraisal of projects have been developed to the point where they could guide decisions on sick industry?

Why have financial institutions continued for decades to ignore economic analysis and to concentrate exclusively on financial analysis? Perhaps there is a simple answer: each one of them has a balance sheet to publish at the end of the year. There is no provision on either side of the balance sheet for showing the contribution made by it to the national economy. It only records the money spent, the assets created and the profit earned. Looming over it all, large and real, is the fear of loss. The financial institutions would be induced to pay more attention to economic analysis if the logic of the analysis is recognized directly and unhesitatingly by the government.

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