

Some Notes on "Planning Experience in Pakistan"

by

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INTRODUCTION

Planning for the national economy is an infinitely complicated process. It involves the harmonization of a large number of independent decisions taken by a great many agencies and groups often representing conflicting interests in order to achieve certain targets which are sometimes themselves in conflict with one another. Only by continuous appraisal and critical analysis of the major strategies can it be ensured that the main objectives are kept in mind while making individual decisions, and that individual policies do not conflict with one another. It is, therefore, important to make detailed assessment of the past experience to gain a general sense of the combination of circumstances which, in the past, did or did not prove favourable to growth.

In his conference address [9], Dr. Huda makes an effort to survey Pakistan's planning strategy in the past and to reflect on the appropriate policies for future. Admittedly, his purpose is to provoke the economists "to think, deliberate and advise". Painting on such a big canvas, Dr. Huda has necessarily adopted an impressionistic technique. What we intend to do in these notes is to try to paint in somewhat greater details a few of those parts of Dr. Huda's canvas which have been left by him with relatively few brush strokes.

2. THE ROLE OF THE PLANNER AND THE POLITICIAN IN MAKING VALUE JUDGMENTS

There are relatively few areas in economics where policy recommendations can be made without making value judgments. In designing a tax to finance certain public expenditure, one must compare the marginal utilities of income to different groups. In deciding between quick-yielding and slow-yielding investment, one has to decide how important it is to go for the former because present population is poorer than future population is likely to be. It is important to realise that any action which affects things like the distribution

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of income between groups at any given time and/or between 'generations' (i.e., groups at different points of time) inescapably involves such valuations even though they are seldom made explicitly. In economics there are few areas where policy-making does not have similar consequences. As a result, the economists cannot really hope to make any effective policy recommendations unless they are willing to make such valuations.

It has frequently been suggested by economists and policy-makers that some division of labour be introduced in this respect. The politician would provide the basic valuations and the economist's job would consist in determining policies which would optimise such valuation functions. Dr. Huda makes the same recommendation: "the value judgments are matters of political decisions which lie outside the ambit of planners as such, and should, therefore, be given to them by the political system"¹.

It is not our purpose to discuss the difficulties of deciding on the political mechanism to arrive at such valuations. Our purpose is the positive one of showing that the economist has an important role to play in the process of arriving at such valuations although he may not actually make the final valuation. One should nevertheless be reminded that the political mechanism of arriving at value judgments is hardly simple and often just as arbitrary as any other way of arriving at such decisions. The democratic process of arriving at a decision by voting may not give unambiguous results without a certain degree of similarity of the social values of the groups and individuals who vote [2]. It can also be argued that the value judgments of a "perfectly democratically" elected political leadership regarding these actions, which affect the distribution of income between the present and the future generations, are likely to be biased in favour of their electorate, the present generation, to whom such political leadership owe their allegiance and depend for their survival². In claiming for the political system the right to make value judgments, we must clearly understand these limitations and the consequences of alternative valuations.

Even if we grant the political system the right to make the basic valuations, it is far from true that the economic planner has no role to play in arriving at such valuations. Let us illustrate. The removal of regional disparity is an important objective of national planning in Pakistan. Clearly, the implicit valuation function attaches higher marginal utility to a unit of income in East Pakistan than to a unit of income in West Pakistan. But in the planning of the location of investment it would be necessary to quantify such valuation: how much greater value must be attached to a marginal unit of income in the poorer region than to that in the richer region? Clearly, such a decision cannot be

¹All references to Dr. Huda are to [9]. It may be pointed out that by planner Dr. Huda means the economist, the technician who prepares the plan.

²For an excellent discussion of the issues, see Sen [14].

taken sensibly without having some knowledge about the production possibilities in the relevant range. If the rates of transformation indicated by the production possibilities are qualitatively similar to the ratios of marginal utilities indicated by the valuation function (*i.e.*, if a unit of income can be generated in the poorer region by sacrificing less than a unit of income in the richer region over a wider range of the production possibility frontier), then we can achieve quite large reduction in regional disparity by using a valuation function that implies only slightly higher marginal utility of the poorer region's income than that of the richer region's income. If, however, the production possibilities indicate that the generation of a unit of income in the poorer region involves the sacrifice of more than a unit of income in the richer region over a wider range, then the reduction of regional disparity would require the use of a valuation function which implies a higher ratio of poorer region's marginal utility to the richer region's marginal utility than in the former case.

Nor is it sensible for the political authorities to reduce the valuation function in such a case to simple objectives like the complete elimination of disparity in a given number of years without any knowledge about the production possibilities. If the production possibilities indicate that disparity can be removed, involving insignificant or no cost in terms of the total national output that has to be sacrificed, then the political authority would be justified in removing the disparity within as short a period as is permitted by other political and social constraints. If, however, such costs of removing disparity are found to be large, the political authority would be justified in going relatively slowly.

Thus, the choice of valuation functions must be preceded by the investigation of the implications of the alternative valuation functions. Naturally, these investigations have to be carried out by the economists who are the professionals in the field. The economists, therefore, have an important part to play in the making of the value judgments. It is for them to specify the sensible range of social choice by identifying the feasible and efficient alternatives. It is also for them to help the society exercise its choice by specifying the important trade-off relations among the major objectives which the society wants to achieve. Finally, it is for them to examine the consistency of the numerous valuations that the actions of the political authorities inevitably involve. This last function of the economists consists in making explicit the basic valuations underlying important social actions in those cases where such valuation are not explicitly made.

3. THE USE OF INPUT-OUTPUT TECHNIQUE IN DEVELOPMENT PLANNING

In recent years, multisectoral models have been widely used to formulate development plans³. The purpose of these models is to make projections of

³Of such models applied to Pakistan's Third Plan, the following may be mentioned: Wouter Tims [15] and Azizur Rahman Khan [10 ; 12].

demand for the major sectors of the economy, taking explicitly into account the interdependence among these sectors. Almost, without exception, these models assume that the production structure is characterised by the input-output technology of the Leontief type. The basic assumption of such technology is that of a fixed input coefficient representing a linear (and often simple proportional) relationship between the quantity of each current and capital input used up by a sector, and the level of output of the using sector.

Dr. Huda recognises the usefulness of the input-output technique but expresses the opinion that it is going to be of far less use in an underdeveloped economy than in an advanced economy: while the economy of a developed country is "highly structured and stable", the economy of an underdeveloped country undergoes rapid structural change; thus the input coefficients in the latter do not remain stable over time.

The above concern of Dr. Huda has been widely shared by economists. It, however, seems to the present writer that the proposition, that for projection purposes the input-output analysis is largely rendered useless by the rapid structural change of the developing countries⁴, is a gross exaggeration of the difficulties.

Contrary to what a layman may believe, the input-output system does not require that the economy remains structurally stable by making all sectors and types of activities grow at approximately the same rate. The technique on the other hand provides the method of estimating the rates at which different sectors are required to grow if some objective (often defined in terms of a certain level of consumption demand but sometimes also includes other components of "final demand") is to be achieved in a consistent manner. In fact one could say that it is the task of the input-output system to quantify the direction and rate of structural change in the economy by determining which are the sectors that must be driven fast (and at what rate) and which are the sectors that may be allowed to lag behind.

The limitations of the input-output technique arise out of the fact that inevitably the input coefficients are estimated on the basis of past data (sometimes more than five-year old) while we all know that these coefficients change over time. Thus the use of coefficients, based on past production relationships for projections in future, is likely to generate inaccurate results.

It must be emphasised that the input-output system does not require the use of past coefficients. The appropriate thing to do would be to use the

⁴Compare Dr. Huda's comment: "... it is time that we utilised this modern approach ... for their present worth, and more importantly, to prepare ourselves for the day when these would be more helpful than they are today". To the present writer this almost sounds like suggesting that *today* the technique is not of much use as an analytical device for planning.

estimated coefficients for the future planning period. Too frequently, the technicians make the convenient assumption that the coefficients in future would be the same as in the past. This procedure is neither necessary nor desirable. We believe that with some effort it should be possible to make certain adjustments in the *historical* input-coefficients to take care of at least some of the factors which are responsible for changes in the coefficients. It should also be emphasised that this problem is not peculiar to the input-output technique. All techniques of making numerical projections suffer from this problem. Perhaps the most important job of the planner and the quantitative model-builder is to free economic models from their dependence on parameters appropriate to the past by trying to see what the direction and rate of change in the parameters are going to be in the future.

The more important factors contributing towards the instability of the input coefficients in an underdeveloped economy are the following:

a) In an underdeveloped economy two techniques of producing the same thing usually exist, a traditional one and a modern one, and there is a rapid increase in the share of the modern technique. This, I suppose, is the main thing people have in mind when they talk about unstable input coefficients in an underdeveloped economy due to structural change.

b) Technological change leads to the substitution of one input for another. For current inputs it may be illustrated with reference to the substitution of say oil for coal due to the change from one type of railway engine to another. For capital inputs one can illustrate with reference to the invention of machines representing different degrees of capital intensity. Technological change may actually affect the input coefficients in a variety of ways: by economising (or using more intensively) some inputs, changing the nature of the product itself and hence the input requirements and so on.

c) While development plans are usually formulated at some base-year prices, the input coefficients available for use in the multisectoral planning models frequently refer to the relative prices of some earlier period — usually the latest year for which a reliable input-output table is available. Prices during the intervening period may have changed. Unless corrections are made for such price changes the results of the planning exercise could be seriously inaccurate.

It should be noted that of the three sets of factors mentioned above, only the first set is peculiar to the underdeveloped countries. It should also be noted that the first set of factors is, in a sense, relatively easy to handle. One straightforward way to do so would be to define the two techniques as separate sectors. If the products of the two techniques are perfect or near perfect substitutes (*e.g.*, milled rice and home-processed rice) then it would perhaps not be

proper to distinguish them as separate sectors for the purpose of projecting demand because all that is known is that a given quantity of both products taken together is being required. In such cases the two techniques could be aggregated as a single sector. One could then project the incremental share of each technique either by extrapolating the past trends or by trying to determine the optimum share of each technique on the basis of available information. The incremental input coefficient for the aggregate sector could then be obtained as the weighted average of the coefficients for each technique, weights being proportional to their incremental shares.

Factors listed under *b*) and *c*) would apply both to a developed and to an underdeveloped economy. I have argued elsewhere⁵ that the effects of the factors listed under *b*) on the stability of input coefficients would probably be more serious in a developed economy than in an underdeveloped one. Once the effect of changing shares of dual techniques is neutralized, technological change within a given technique is perhaps more rapid in a developed country. New methods of production are introduced at a more rapid rate in these economies than in the developing ones. Standard of obsolescence is higher also in the former. Thus it is difficult to agree with Dr. Huda that the assumption of constant input coefficients is more realistic in a developed economy than in a developing one.

In a developed economy production techniques represent the frontier of technological knowledge. An attempt to predict the direction of technological change is, therefore, very much in the nature of exploration into the unknown. The technology in a developing economy on the other hand is frequently far inside the boundary. The direction of technological change can, to some extent, be predicted by examining the technological opportunities as represented by the various alternatives thrown up by the experience of the developed economies and by evaluating the relative feasibility and desirability of these alternatives. Thus, the task of adjusting the input coefficients for the factors listed under *b*) is probably easier in the developing countries than in the developed ones.

The adjustment for relative price change is purely an empirical problem and presents no analytical difficulty. The procedure should be the same in a developed economy as in an underdeveloped economy.

We have tried to demonstrate above that the assumptions of the input-output model are probably no more unrealistic in an underdeveloped economy than in a developed economy. We have also tried to point out certain directions in which effort must be made to adjust the input coefficients estimated from a past input-output table to reflect more accurately the production relationships at present and immediate future. The question still remains that the state

⁵See [11].

of statistical information in a backward country being much less developed than that in an advanced country, the estimated input coefficients for any historical period are subject to larger variance in the former than in the latter. Again, in the opinion of the present writer, these difficulties have been exaggerated. For an estimation of the incremental input coefficients for planning what must be ensured is reliable information not necessarily about the whole of the economy, but particularly about those parts of the economy which are growing fast. In an economy like Pakistan, the parts that are growing fast are in the organised sectors in which relatively reliable information can perhaps be generated with some effort.

Of course one must have reasonably accurate information about agriculture. But here again the difficulties need not be insurmountable if a set of carefully selected sample surveys are repeated with regular frequency. Secondly, it must be emphasised that the use of input-output technique in planning does not mean the extension of its assumption to describe all activities in the economy. Even in the classical input-output model, intersectoral deliveries are explained by the input-output assumption of fixed coefficients while the so-called components of final demand are explained differently. The principle should be to apply the technique to describe the activities which approximate with reasonable closeness of the assumptions of the technique, and to use other appropriate assumptions to describe other activities. Certainly the assumption of fixed input coefficients is too strong for agriculture: *some* possibility of substitution between inputs (*e.g.*, between water and fertilizer) of course exists although the range of such possibility is perhaps not as great as is sometimes thought. One should, therefore, deviate from the classical input-output system to describe this sector. Again this need not invalidate the use of input-output technique for the rest of the economy: what we shall end up with is a multisectoral model for planning where production in general is described by an input-output technology with certain important exceptions where more general techniques are used.

To summarize the discussion above: input-output technique, properly used and limited to the description of appropriate sectors, should not prove significantly less useful in an underdeveloped economy than in a developed one as a tool for planning.

✓ 4 STRATEGY OF INDUSTRIALISATION AND DISTRIBUTION OF INCOME

Egalitarianism never had priority in Pakistan's development plans. It seems certain that the distribution of income between the very poor and the very rich has become more unequal over time⁶. It can be argued that in a

⁶For East Pakistan we have recent studies on real income trend of urban and rural workers. Over the fifties and the early sixties none shows any tendency to rise. Both show some

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surplus labour economy like ours the main task of an egalitarian income distribution policy is to create additional employment at a rapid rate because the unemployed people form the lowest income groups so that the most urgent task is to bring them up to the level of the lowest-paid employed population. Since agriculture already contains a lot of underemployment, this essentially means driving the non-agricultural sector so fast as to allow the absorption of the addition to (and perhaps of a part of the currently unemployed) labour force.

While we do not have any information for more recent years, the comparison of the two population censuses shows that during the decade 1951-1961, a period of very rapid industrialization, this objective was achieved to a certain extent only in West Pakistan. For Pakistan as a whole the rate of growth of non-agricultural employment barely kept pace with labour force while for East Pakistan non-agricultural employment grew at a significantly slower rate than labour force. Thus, the size of the lowest income group increased absolutely for Pakistan as a whole and increased as proportion of total labour force in East Pakistan.

There has been too little worry about the distribution of income in the past and one can detect in official documents an effort to defend the state of affairs by taking recourse to the following kind of reasoning: to generate a high rate of saving, income growth must be concentrated at the hands of the high savers. Capitalists are very high savers. So the policy of transferring resources from other sectors (agriculture) to the capitalist sector (a policy whose main impact would be on the standard of living of the poor in agriculture) and keeping wages down in industries to increase the share of profits would encourage savings.

Clearly a great many assumptions and value judgments underlie the above reasoning. In the past our planners and policy-makers have uncritically accepted the assumptions as valid without verifying them with reference to facts. The value judgments have never been made explicit so that the political authorities, who have been making the decisions that create such a situation, have never been confronted with the explicit implications of their actions.

It is, therefore, extremely relevant and timely for Dr. Huda to ask certain important questions about the policy of giving maximum advantage to the capitalists in the hope of maximizing savings and growth. The questions that should be asked (and some of which have been suggested by Dr. Huda) are:

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decline. In West Pakistan urban wage rate goes down. While we do not have any information about rural wages, it seems unlikely in view of the large transfer of labour from rural to urban areas that rural wages showed any significant increase.

During the same period per capita income rose quite a bit. This means that the working population in the very low income brackets (who constitute quite a large proportion of total employment) became poorer *relative* to an average income-earner. That the urban capitalists' income rose at a fantastic rate is common knowledge. For statistical information see, A.R. Khan [13], S.R. Bose [3] and Mahbubul Haq [8].

a) Have the private capitalists been as high savers as has often been assumed?

b) Is the strategy adopted in the past the only one which can generate high savings? Will it be impossible to generate savings at this rate by adopting some alternative strategy?

c) What is the quantitative nature of the trade-off between more equitable income distribution and the rate of savings? Does the trade-off justify generating more inequality for the additional saving that would be forthcoming? How non-egalitarian must our valuation function be to do that?

Although conclusive answers must await additional research (which has been emphasized by Dr. Huda as highly desirable), we can make a number of observations to show that the efficacy of the policy followed in the past has at best been very doubtful. Recent studies⁷ show that our capitalists have not been as high savers as is generally supposed: in the recent past the corporate sector on the average saved only about half of its gross profits⁸. Although it is a respectable rate, it certainly does not picture the capitalists as highly frugal people concerned primarily with the execution of their social function of managing and expanding the production base of the economy. The price that has to be paid in terms of capitalists' consumption is very high indeed.

It has been argued in a number of recent studies⁹ that the real savings done by the capitalists should be estimated after subtracting the estimated value of the income transfer from rural to urban areas affected as a result of the direct controls on foreign trade and of the excess of agriculture's sales to over-purchases from manufacturing. Once these factors, however conservatively estimated, are taken into account the conclusion is inescapable that the real savings of the capitalists have been negative.

In trying to find an answer to question b) it can be argued that while it is impossible to make a private capitalist divert his entire profits to reinvestment in a public enterprise it need not be so. The argument that one will almost inevitably face in Pakistan is that this potential advantage of public enterprise is more than offset by its actual inefficiency reflected in its low rate of profit as compared to that of private enterprise. Too often this has been argued without ever demonstrating why it is necessary for a public enterprise to be less

⁷See Wouter Tims [15] and Khadija Haq and Moinuddin Baqai [6].

⁸See [6]. It must, however, be remembered that the real saving rate has almost certainly been lower because our "liberal" tax and business laws permit many things to be shown as costs which should properly be treated as capitalists' consumption.

⁹See A.H.M. Nuruddin Chowdhury [4] and Keith Griffin [5]. The validity of the argument rests on the assumption that if such income transfer had not taken place then a part of it would be saved. From what is believed to have been the pattern of behaviour of the farmers in recent years, it does not seem unlikely.

efficient than a private enterprise. If a public enterprise is less profitable than a private enterprise in the same kind of activity then it is purely because the objective of the public enterprise is not the maximization of profit. Certainly public enterprise can be run at least as efficiently as a private one if the objective of maximum profit is accepted and ruthlessly pursued. In other countries outstanding instances of successful public enterprise are many¹⁰. It should also be remembered that the outstanding examples of rapid economic development through domestic savings in the present century have mostly been under the system of public ownership.

Finally let us suppose for the sake of argument that higher savings can be generated only by making the income distribution more unequal. Are we always justified in sacrificing income distribution for the sake of savings? Clearly we must have information about a lot of things to decide. First we must know how much saving we generate by reducing say the workers' consumption (wages) by a rupee. It seems in Pakistan it increases by almost half a rupee while the other half goes to capitalists' current consumption. Moreover, this kind of development strategy commits ourselves to a system in which a very high proportion of the future addition to output generated by this half rupee of saving would go to capitalists' consumption. Thus even if this were only way to generate savings we would have to stop before very long unless our social welfare function is extremely non-egalitarian.

5. TIED EXTERNAL CREDIT

Dr. Huda has raised a number of highly relevant questions about foreign assistance. These deserve the close attention of the economists and policy-makers. One such question is about external credit tied to a particular source of procurement.

The practice of tying credit to a source of procurement has led to the sharp rise in the cost of imports under such aid. Part of it is due to the fact that the lending country is not the cheapest supplier (else there would be no need to tie credit!). But there also is considerable evidence that the knowledge that imports must come from a particular country encourages the exercise of monopoly power and invites collusion among producers in that country¹¹.

Statistical information from official sources on the percentage difference between the lowest quotation from tied source and the lowest quotation on international bids for some Pakistani projects under tied credits shows that we frequently paid 75 to 100 per cent higher price¹². In such a situation the con-

¹⁰See, Griffin [5] for a list of examples.

¹¹See, John Adler [1, Pp. 352-359].

¹²See Mahbubul Haq [7, Statistical Appendix].

cessional interest rate of 3 per cent does no longer remain a concessional rate but in reality means an interest of something like 10 per cent, and the 6 per cent interest rate can easily mean a real rate of something like 20 per cent¹³. Surely some of these rates are too high to contract loan at. Dr. Huda's criterion that "there is a critical rate of interest around 6 per cent for underdeveloped countries, beyond which foreign loans are not likely to prove beneficial" should be interpreted in this context. Actually if the tying of credit to a source of procurement results in a very large rise in price (say 50 per cent or more) then 6 per cent may be too high an interest to pay.

If it is true that the reason the developed countries tie credit to the loan-giving country is their worry about the loan-giving country's balance of payments and not to make the developing countries pay a much higher rate of interest than would obtain under a system of free international capital movements, then the developed countries must take some counter measures. One such measure is the repayment tied to the borrowing country which has been suggested by Dr. Huda. Actually some socialist countries at the moment operate according to this principle¹⁴. But to the extent the tying of repayment to the borrowing countries would tie the goods that the latter could export anyway this is not necessarily an improvement. Moreover, it is doubtful if the borrowing countries could exercise the same amount of monopoly power to raise prices at the time of tied repayment.

An easily workable alternative is to estimate the amount of higher price paid due to tying by comparing the lowest bid in the tied market with the lowest international bid and write this amount off in the initial year. If the developed countries are honest in their assertion that their main worry is their balance of payments and not the extortion of usurious interest then they should have no objection to such arrangements.

¹³Take the case of a 3-per-cent interest loan which matures in 10 years and assume that the entire interest and principal have to be repaid at the end of the 10th year. For the loan of \$100 in year 1 a sum of \$134 has to be paid in year 11. If, however, a 100-per-cent higher price was charged, the situation compares to the one in which a loan of \$50 compounds to \$134 after 10 years. This implies an interest rate of over 10 per cent.

¹⁴Soviet loan to India is an outstanding example. See, Adler [1, Pp. 352-359].

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