The Model of the Economy and the Criteria of Planning

PETER WILES*

The Government of Pakistan is a large capitalist operating on the market in default of private enterprise and private capital. It both draws up its capital projects and operates, currently, the assets it has created, in deference to the market. The theoretical model of the Pakistan economy is thus either one of pure private enterprise or one of market socialism as in Yugoslavia, according to whether the enterprise is founded by the Government or not; and if the former, whether it is on principle retained as public property or eventually auctioned off to private owners. The difference is of ideological, social, and political interest, but does not concern the working of the economy or in particular the methodology and structure of the Five Year Plan.

1. Resource Allocation

(a) In all planning models, the problem of allocation arises and is fundamentally the same. However, consider it from the point of view of the planning model above described: first, what should be the Government criterion for investing its capital in a given project? I suggest that it should be fundamentally none other than that used by the private entrepreneur: the simple profitability of the scheme. The divergence of private and social profit must, of course, be taken fully into account, but only after the private profitability has first been established; otherwise, social criteria have no basis upon which to build. It is with great surprise that I have heard from some (though it has been denied by others) that the basic criterion for adoption or rejection of a project is not profit but the capital/output ratio: a criterion which would rapidly reduce any private businessman to bankruptcy. The absurdity lies, of course, in the fact that the ratio deals with the cost of only one factor of production, and that not the most important in terms of the monetary outlay.

One can understand the psychological process whereby the planner is induced to consider only this ratio. For it is capital alone that he has to allocate since the Government will have to buy the other factors of production in the free market, the Pakistani economy being, as we have seen, based upon a free market for as many things as possible. But this is a merely psychological explanation and affords no logical support for the use of this ratio as a basic criterion. For the private businessman also has to allocate capital, but he uses no such ratio. Since he must live in the market he must take into account the cost of the other factors. So, obviously, should the government.

The divergence of private and social profit has, of course, no connexion with the choice between these two criteria, since it is equally neglected by both. Whichever we use, we have afterwards to adjust for social effects, external economies, etc.

The substitution of ordinary commercial profit for the capital/output

*The author is visiting Professor of Economics at Brandeis University, Waltham, Massachusetts, U.S.A. He is indebted to the Seminar on the Second Five-Year Plan conducted by the Congress of Cultural Freedom in Karachi in July, 1960. In particular, he writes to acknowledge the seminar contributions of Dr. S.A. Abbas and Dr. Mububul Haq.
ratio as the basic criterion makes it possible also to take into account more fully and conveniently certain special features of the situation in Pakistan which evidently gave the planners much trouble: the shortage of foreign exchange and the superfluity of unskilled labour. That is to say, one can improve upon the ordinary commercial profit by building into the rules which the planners use in their accountancy factors of increment or decrement for particular services. It would, for instance, be helpful if in the Planning offices all calculations of the foreign exchange component were entered at a rate of exchange, say, double the official rate, and if the use of unskilled labour were entered at, say, one quarter of its current wage. In the same way, the shortage of capital should be taken into account by using a very high rate of interest, say something like 10 per cent (I understand that, owing to the imperfection of the capital market, yields on securities are much lower than 10 percent.) In this way reliance on profit, rather than on the capital/output, automatically takes into account relative scarcities not adequately reflected by market prices, and obviates the laborious post factum correction of a list of projects already drawn up. It is, of course, irrelevant that the government does not actually pay interest on most of the capital it spends, and does not (in the absence of the import surcharge proposed by the Plan) pay more than the official rate of exchange. The point is that the planners should decide according to the true relative scarcities.

A further point is that the use of the capital/output ratio entirely omits the question of the durability of the asset. Whether the capital asset will be obsolete or worn out in two or twenty years, the capital output/ratio cannot tell us. Yet, in some cases, the depreciation cost is very great indeed, and it is surely absurd in a country so short of capital to use a criterion which neglects this elementary point.

But more important even than the neglect of depreciation rates or the failure automatically to consider the foreign exchange component is the unimaginative treatment of unskilled labour: Unskilled labour should, of course, be reckoned at less than its market value because its market value is little more than its subsistence and it has, by definition, acquired that already, since it is alive and available. To be sure, it is not quite a free good, for when it enters employment it must often be transplanted (especially to the site of a civil engineering project; it must not, on the other hand, be forgotten that there is no immense amount of idle labour already in towns). Also, it must always be better fed: there are more calories in the minimum subsistence of a man at work than in that of a man without work. (But, substantially, unskilled labour has no social cost. There should, then, be as much talk of the “unskilled labour component” in development as of the “foreign exchange component.”)

When one tries the above suggestion out on Pakistani planners they put up, of course, the resistance that is the due of every innovation. The point that the capital/output ratio misallocates capital itself, since it embodies neither a rate of interest nor a rate of depreciation, is, of course, entirely unanswerable. For the rest there are two lines of defence. One is “Oh, but we take all those other things into account as well.” The other is “Ah, but skilled labour is capital, and most of the foreign exchange goes on capital goods, too.” To the first, I reply, why not take them into account properly and automatically? Why treat them as an afterthought? The second defence seems to me simply dishonest: the word “capital” is expanded and expanded under criticism until it becomes a synonym for “scarce resources.” Now it may be necessary for the morale and prestige of that Brahminical caste, the professional economists, to
avoid words like “profit,” that even illiterate people can understand; so that, provided they mean “scarce resources/output ratio” when they say “capital/output ratio,” it does not matter. But there are other considerations than the morale and prestige of an inner circle. First, they may be, and indeed are, misled by their own curious use of words. If you say “capital,” you are apt to mean “capital,” and then you will be misallocating scarce resources. Secondly, at many other points the Plan has gone out of its way to appeal to the masses. Its broad outlines are supposed to be understood and agreed on by very wide circles. Why, then, not initiate them into the criterion used? If it is the capital/output ratio *propriement dit*, it is a wrong criterion and should be changed. If it is the “scarce resources/output ratio” then that, by definition, is social profit. “Social profit” takes less time to say, and is more easily understood.

(b) The Plan is quite right in its rejection of the input/output analysis as a tool, but not only for the reasons given: the shortage of administrative and research personnel, the unreliability of the figures, etc. The main reason is that input/output is almost entirely unnecessary in an economic model such as that chosen by Pakistan. We need to know precisely the total ultimate effect upon the rest of the economy of any change introduced into the bill of final goods only if the economy is entirely self-sufficient and wholly centrally planned. A market system in which prices move in order to bring about adjustments, and which is open at every pore to other market systems such as the private sector of Pakistan and rest of the world, has no special need to know if its plans are physically so consistent or whether bottlenecks are likely to arise. If the planners make mistakes and create bottlenecks, they create *eo ipso* profitable opportunities for importers and private producers. The market cushions their errors. Certainly we are grateful for such knowledge, as, for instance, private enterprise in the United States is grateful for the predictions of input/output tables. But the thing is clearly not of the first importance. It is surely wrong to allocate scarce intellectual resources to this pursuit when they might be, for instance, engaged in the thousand times more useful study of the economic behaviour of the peasantry. The Government Plan is under no necessity at all to be exactly balanced, since it can draw from the rest of the economy or the outside world, both for factors of production and for markets. It requires balance in only one sense, that it should pay its way, drawing no more from the private sector than the budget and the deficit finance plan permits, and taking no more from the outside world than exports and foreign assistance make possible.

Not only input/output but nearly all theories of balanced growth are liable to these same criticisms. Speculation outruns practicability, and in no field farther than in economics. The intellectual attractions of input/output (“It’s modern,” “It’s mathematical,” “No one over thirty understands it”) must not blind us to its uselessness in a country where, to take just two instances, an immense volume of goods is smuggled and the accountancy, even the literacy, of entrepreneurs is rudimentary. I can modify the rigour of this condemnation only so far that when the government plans a very wide sector all its projects react upon each other so that the mere internal consistency of the plan requires some system of simultaneous equations. But, to repeat, internal consistency is not essential in an open system. Compared with such yawning gaps in the planners’ knowledge as peasant investment, the volume of capital consumption, and the distribution of income, an input/output table is clearly a non-starter.

This is not all. The extent of the saving effort seems to have been overstated, not statistically, but through two conceptual errors. My first objection is
of very little statistical importance, but of some theoretical interest. It is that it is not strictly true that it is intended to “save one-fourth of the increase in per capita income” (Plan, p. 9). This indicates a marginal “propensity” (if propensity be the right word for what is mainly a fiscal effort) to save of 25 per cent. But part of this extra saving is to be raised through taxes, and, in fact, it is intended to impose larger taxes on existing incomes, whether or not they increase. Since the Plan (Pp. 50-55) asks for more than Rs. 1,000 million on the assumption that the economy grows as it predicts; we shall be on the safe side in putting the “non-marginal” element in its tax proposals at an extra Rs. 800 million on existing incomes. The truly marginal element in saving is then not 25 per cent, but

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\frac{1,000 - 800}{11,000} \times 100 = 23 \text{ per cent. This is still, of course, a frighteningly high rate,}
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Of much greater importance all round is that the Plan at no point allows for the fact that, to repeat, in Pakistan unskilled labour is almost a free good. The unskilled labour component in development expenditure represents, then, no true sacrifice. Let us attempt to estimate it. Imports come to Rs. 6,500 million in a total development expenditure of Rs. 19,000 million (Plan, p. 98). So the “domestic component” is Rs. 12,500 million. Let us be very conservative and guess that directly or indirectly unskilled labour accounts for one-third of this, or Rs. 4,170 million. Then, allowing arbitrarily for the genuine social costs of employing unskilled labour, noted above, we conclude that very approximately Rs. 3,500 million in the whole plan is of a very special nature. It must be financed, but has no opportunity cost. If saving means the accumulation of capital, it exists. If saving means the effort of abstinence, it does not exist. That is to say, the relatives of these people already in work will be relieved to the extent of Rs. 3,500 million they at present hand out, and the government will hand it out instead.

But Rs. 3,500 million is not chicken feed. Indeed, it is 2.4 per cent of the GNP. This immense figure does not affect the comparison between the first and second plans, since there was equal unemployment during the first plan. What it does is show how extremely little abstinence effort Pakistan is, in fact, making: “gross saving abstinence” is not 7.8 per cent of GNP (Plan, p. 28), but 5.4 per cent. “Net abstinence” is thus very small indeed, probably less than half the 5.8 per cent suggested as reasonable above. The families relieved of dependents by the employment created in the Plan are getting away with a huge windfall.

(c) All types of planning need to be flexible, but this type, perhaps, needs it most. The list of projects needs to be revised currently in view of the changes in their prospective probability. Strictly speaking, it is not necessary for any given project to look further ahead than the number of years which the most durable asset in that project will last. Thus, the idea of a Five-Year Plan, invented by Stalin, is crude and inconvenient. Each project is a separate Plan by itself, some last two years, some twenty years, and some through inter-temporal linkage commit us, probably, for ever. A Five-Year Plan is, as Stalin saw, a useful propaganda device, but—what he did not see—it is little more than that. It may be entirely necessary for the morale of the people, and indeed of the Planning Commission, to have a target, but the five year period must not blind us to the necessity of looking ahead in the case of each project for that period of time which a private businessman would have to look ahead before he adopted it; nor to the necessity of always being able to look the same distance ahead. Thus, with a rigid five-year periodisation it is very difficult to take long-term decisions in fourth
years. But it is essential to be at all times ready to take such decisions. Therefore the five-year rhythm must be a mere outer garment, donned for ornament or respectability, and not a strait jacket.

(d) It seems incorrect to begin making such a Plan by predetermining the sectoral allocation of funds: 20 per cent to agriculture, 30 per cent to water and power, etc. For it is entirely unclear that if the total list of projects is arranged in order of social and private profitability and cut off at that number which the Government has money for, there will, infact, be such a sectoral allocation as the planners have arbitrarily laid down. It is, of course, useless to speak about the profitability or the marginal capital/output ratio in "agriculture," or "industry," or other large sectors of the economy, since it varies enormously. Our interest is in the profitability of the given project. The sectoral allocation should emerge *ex post* from the decision of the list of projects; or if that is politically impossible it should at least be permitted to transfer finances from one sector to another in extreme cases. I suspect, for instance, that the distressingly high marginal capital/output ratio of the First Five-Year Plan, commonly attributed to administrative inefficiency, was in part, due to an arbitrary and incorrect initial sectoral allocation. It was later established that too much effort had gone into water and transport, as can be seen from the small use that has been made of the projects completed in these sectors. Had there been no sectoral allocation, but, instead, a rigid adherence to the profit criterion, these troubles would not have arisen. Naturally, such items as education and family planning, which give rise to no direct profit, require block grants. But, for the rest, profit is calculable: obviously so in agriculture, housing, power, and industry; less accurately in water and transport. Notoriously, social profit in road transport, when we include the roads themselves, is difficult to estimate. But it is not impossible and it is very important. In the United States and the United Kingdom the estimation of profit in such difficult cases is steadily becoming a finer art. Specialists in this field would be among the most valuable for Pakistan, which can afford far less than the United States or the United Kingdom to waste resources on misplaced roads. No one must be misled by references to water, power, and transport as "basic services" or "social overheads." They may well be both, but they are also economic enterprises, in which waste may occur.

In all these sectors, then, I suggest in all seriousness that the planners should cease to bother their heads about sectoral allocations at all. What is the point of them? They are, in fact, a vestigial remnant of physical planning, of the notion that planners know best exactly what ought to be done without submitting their judgements to calculation, of the desire to give the economy a central direction—any direction, so long as it is centrally determined. They have nothing to do with the idea that the government must simply raise the rate of growth, in default of private enterprise and capital. For the rate of growth is most raised when capital is most profitably invested, since it is out of profits that funds for reinvestment come.

II. Agriculture

The Plan shows a certain fear of food imports expressed in rather emotive language and evidently of political inspiration. Nevertheless, it is, of course, quite possible that the political inspiration was economically correct in terms of the argument here, that the least profitable agricultural project in the Plan is no less profitable than the worst projects in other sectors. On this I am obviously incompetent to pass judgement, but the prejudice against food imports calls for
a few general remarks. It is perfectly reasonable for an underdeveloped country to import food; many areas in Africa specialise in technical crops or in cash food crops of a type unsuitable to local tastes. They export the crops and food is imported. Again, and more relevantly for Pakistan, many countries of a slightly higher stage of development such as the United Arab Republic show a tendency to export manufactures in exchange for food.

The question can best be analysed in very general terms. The monetized or non-subsistence sector of Pakistan is one, and the subsistence sector another, nation. This second nation engages in no trade with either the first nation or the outside world, so it can be excluded. The question is how best to use the factor endowment of the former nation. It is evident from the American statistics of the average capital/output ratio, and from Pakistan’s own experience in the First Five-Year Plan of the marginal capital/output ratio, that agriculture uses just as much capital as, if not rather more than, other sectors of the economy, even in an underdeveloped country. So, contrary to common supposition, there are no a priori grounds for holding that a country poorly endowed with capital should specialise in agriculture, or one richly endowed, in manufactures.) The examples of Australia, New Zealand, Canada, and above all the United States sufficiently illustrate the point. Now, to be richly “endowed” with capital is, almost by definition, to be a developed country. (“It follows so far as this argument goes that there is no case for an underdeveloped country to specialise in agriculture unless its labour/land endowment indicates that it should. Now, what is the labour/land endowment of the monetized sector of Pakistan? Obviously, one highly inimical to agriculture and highly favourable to industry, just as the British or Japanese labour/land endowment. In other words, the degree of development of a country is of quite secondary importance: poor countries (Pakistan), middling countries (Japan), rich countries (Britain), should accordingly export manufactures and import food if their labour/land endowment indicates such. Or, in the particular context of planning in Pakistan, there is no ground for surprise or alarm if the profit criterion tends to exclude agricultural from, and include industrial projects in, the planners’ list, so that ex post we find a smaller sectoral allocation to agriculture.)

Of course, if “agricultural” development expenditures in fact include roads not strictly necessary for them, and other expenditures that should strictly be placed in other categories, while “industrial” expenditures omit the consequential costs of urbanisation, then the crude comparison is unfair to agriculture, and we have not the correct figures before us on which to choose. But the point can be exaggerated. Side roads are an integral part of any agricultural scheme, and must certainly be included in it in all cases where the population is being moved, e.g. on to new land. As to urbanisation costs, houses must be built anyway, so if they are built near factories they are not a cost of industrialisation. But in any case the point is to acquire the correct figures and then follow where they lead, fearlessly.

Naturally, this piece of pure static Ricardian economics is by no means a decisive consideration. Mere political ambition apart, there are many other general considerations such as the strategic danger of importing food, the defence-

2. Strictly, one is not endowed with capital, one accumulates it. But this does not affect the argument.
lessness of a poor country in this position, with its low foreign exchange reserves, against bad harvests at home and abroad, and the social desirability of economic progress among the peasantry who are both the most backward and the most numerous part of the nation. In particular, it will not do to argue against agricultural investment that, after all, so much agriculture is in the subsistence sector and the increase in production will simply be eaten on the farm. The members of the subsistence sector are also citizens of Pakistan and have as much right to lead a better life as their monetized fellow-countrymen. There is absolutely nothing wrong in a Plan positively designed to raise subsistence incomes while not monetising them. The only question is whether the social and commercial profitability of such schemes would be greater or less than the schemes in the monetized sector. It is true, of course, that if manufacturing were preferred it would tend to leave the village as a backward and stagnant enclave in the economy. But this might be the best thing to do, for not only might it be the quickest way to increase the national income but also it can be argued that there will be no serious consolidation of holdings and no serious adoption of modern techniques in the village until some of the population has been removed; in other words, the profitability of agricultural investment will be low so long as there is overpopulation.

(It is interesting that many Pakistani economists, brought up on British economic history, like to ascribe the initial role in Britain's industrial revolution to agriculture. Modern British economic historians tend to question whether it is more than a chance that the enclosure movement and the beginning of technical progress in agriculture came before the inventions in textiles and steel making. It is difficult to believe that, if Parliament had not been dominated by landlords, and so the enclosure movement had been delayed, James Watt would not have contemplated the lid upon the famous kettle, or that his steam engines would have been unsaleable. The priority given to industry in the Soviet Union, on the other hand, is no mere chance. It is a curious fact that despite the slaughter of livestock and the catastrophic decline in labour morale brought about by forced collectivisation, agricultural output in the Soviet Union did not fall between 1928 to 1940. Moreover, the withdrawal of much of the rural population opened the way to fairly considerable progress in agricultural efficiency in recent years.) One may indeed ask whether British agriculture would have continued to progress after the initial upward leap due to the reorganisation of enclosure, had not the industrial revolution supervened to draw off the surplus labour. It is, of course, a well-known fallacy that enclosure itself depopulated the countryside: it had no such effect.

III. Is the Plan Too Ambitious?

(a) The visitor for one week, without any previous knowledge of Pakistan, is very ill qualified to judge such an essential statistical question, whereas he may possibly make some sensible contribution on matters of principle. Nevertheless, having listened to the discussion at the Institute of Development Economics, I feel that I must say something about this. The word ambition has, in this context, at least two meanings: effort and optimism. There is too little effort if too little money has been screwed out of the population. There is excessive optimism if foreign assistance or the supply of scarce factors such as technicians and raw materials or the change in social attitudes in the village are over-estimated. As to effort, it is difficult to avoid the conclusion that the Plan is too unambitious. This view can be defended in two ways. Firstly, as regards gross domestic saving, the Plan demands from the population only another 1.8 per cent of GNP than did the first Plan. It is surely strange that a strong and purposeful govern-

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ment, succeeding to a weak and chaotic one, should have set its sights so low. Secondly, one can argue thus: the rate of gross domestic saving of the Plan is only 7\(\frac{1}{3}\) per cent. Understandably, but regrettably, there are no figures for depreciation, so it is impossible to tell what it means in terms of net saving, which is of course the only relevant criterion of effort. Suppose that depreciation is 3.0 per cent of the GNP; is 4\(\frac{1}{2}\) per cent a creditable figure for net saving, or not? We have no figure for income distribution in Pakistan, but it is estimated that in Ceylon and India some 20 per cent of the population have 50 per cent of the national income. Apply this figure to Pakistan, and demand that these people save 10 per cent of their incomes, and the remainder of the population, 1 per cent. We arrive then at a figure of 5.8 per cent for the whole country, a figure surely in excess of the net saving proposed in the Five Year Plan.

(b) So much for effort. Turning now to ambition, in the sense of optimism, one must be an insider to judge whether the yields of the various schemes have been exaggerated. One thing, however, an outsider can say. Suppose they have been; suppose there has been every sort of miscalculation. Indeed, if the criterion of sec. I has been the main one, there has been every sort of miscalculation. Still, then, something has happened; progress in the wrong direction is still progress if it adds something to the national income. Suppose, even, that the larger the Plan the greater the tendency to misallocate resources. That is not a strong argument against a larger Plan: the “marginal propensity to waste” must rise close to 100 percent in a poor country before the expenditure of greater development funds becomes actually undesirable.

It is easy to misunderstand this argument. It is not in favour of deliberately adopting wrong criteria of choice. On the contrary, in a poor country waste is much more intolerable than in a rich one; and the almost costless process of getting one’s thinking about criteria straight should most certainly be undergone. But, when that is done, we have still to contend with administrative incapacity and ignorance in the application of the criteria. And here, clearly, we have to choose between waste and stagnation. The choice is obvious.